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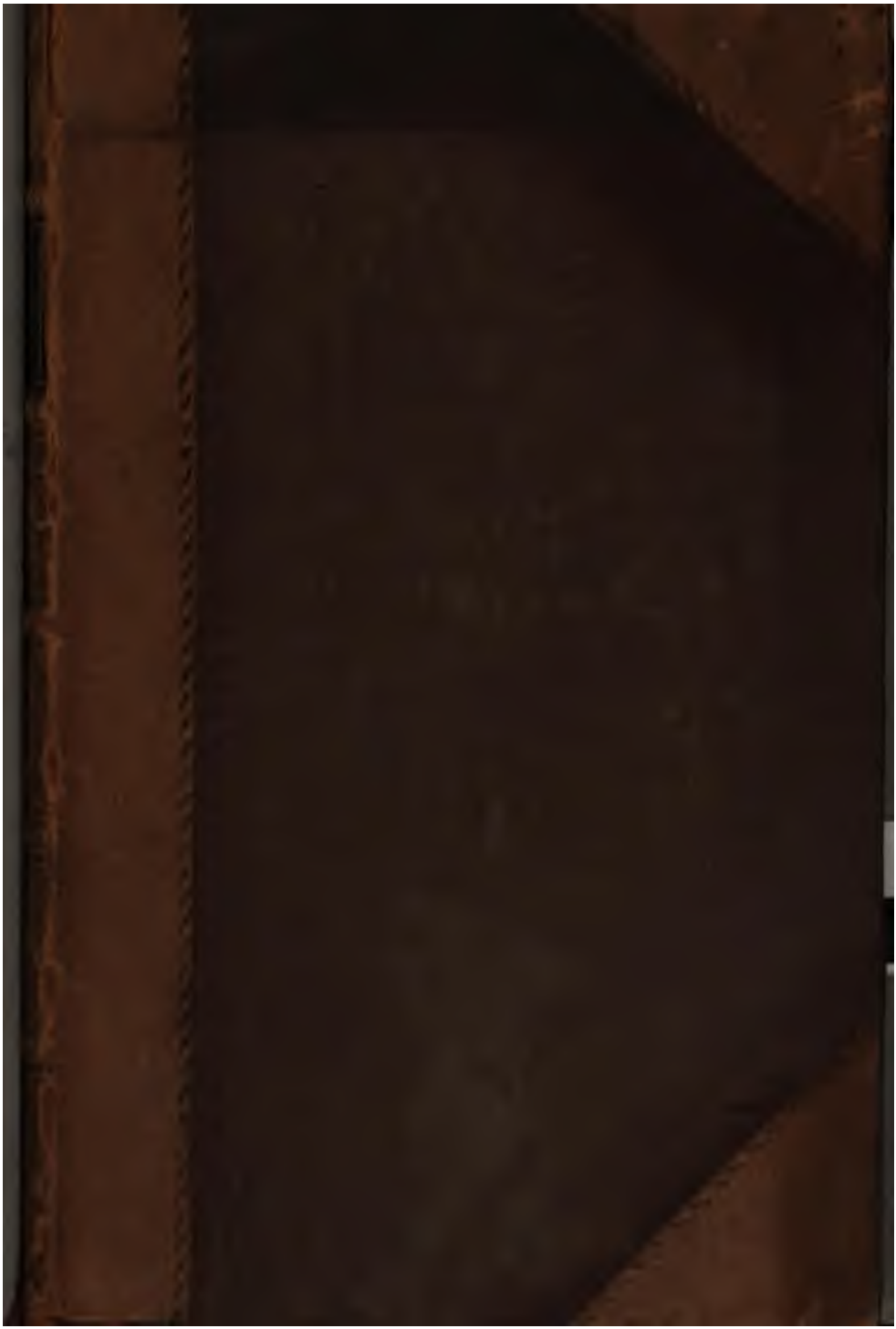

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MEDICAL ADVICE

TO

THE INDIAN STRANGER.

BY

JOHN M'COSH, M.D.

LICENTIATE OF ROYAL COLLEGE OF SURGEONS, EDINBURGH;
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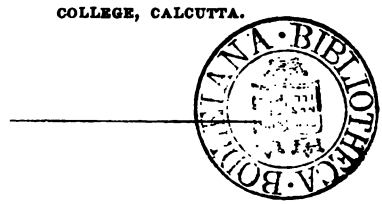

LONDON:

WM. H. ALLEN & Co., 7, LEADENHALL-STREET.

1841.

455.

LONDON: PRINTED BY W. LEWIS AND SON, WINCH-LANE, CORNHILL.

TO

THE RIGHT HONOURABLE

THE EARL OF AUCKLAND, K.G.B.,

GOVERNOR-GENERAL OF INDIA.

MY LORD,

On a recent occasion, your Lordship was pleased to approve of my Official Treatise on the Topography of Assam; to rescue it from oblivion, by ordering it to be published at the public expence, and distributed amongst the Staff of the Presidency; and to reward my Public Services by preferment, uninfluenced by private interest. Thankfulness for your approbation; gratitude for your patronage; esteem for your character, as the Patron of Literature in the East; and admiration of your genius, in adding fresh lustre to the brightest gem in the British Crown, in times of great difficulty and imminent danger, induce me to dedicate to your Lordship the following Pages.

I have the honor to be,

MY LORD,

Your Lordship's much obliged,

Most grateful, and

Very faithful Servant,

London, July 1, 1841. J. M'COSH, M.D.

PREFACE.

THE following Essay was originally written as a Thesis, in order to qualify me for receiving the degree of Doctor of Medicine from the University of Edinburgh, and is now published, partly in fulfilment of that object,—partly in the hope of supplying the parents and guardians of young Medical Men with some adequate conception of the nature of the Bengal Medical Service,—and partly with the view of furnishing Assistant-Surgeons, and young Officers generally, with some useful advice on first arriving in the country. I am, therefore, not quite a volunteer in the lists of typography, and I trust the Indian Stranger will find enough, in these pages, to recompence him for a perusal, and to plead my excuse for so far obtruding myself upon his notice.

It is true, I have no grand discovery to offer

upon the shrine of science,—no flood of light to pour out and illuminate the dark and unfathomable labyrinths of disease,—no medical heresy to tear up by the roots and exterminate,—and no Utopean doctrine to revolutionize the economy of life in the East. Nevertheless, if I cannot add another weapon to the armoury of the experienced Physician, I may avert a shaft or two of the great destroyer of mankind; if I cannot present a conjuring wand to the emancipated student, I may supply him with a walking-stick, to help him over the ruts and clods, the boggy foot-paths, and briary thickets that lie along his professional march; if I cannot give the yet beardless hero a panacea for all the evils that may assail him, I may put a Davy's lantern into his hands (the very obsurity of whose flame constitutes an excellence,) which will enable him to prosecute his military campaign with safety, amidst the most combustible and warlike elements.

J. M'C.

CONTENTS.

Paragraph.

I. Constitution of Government—Home and Indian Authorities—Presidencies—Armies.

II. Medical List—Rank—Periods of Service in each grade—Promotion—How regulated.

III. Commissions in Royal Army, and Company's —Fees on Commissions.

IV. Medical Board—of whom composed—their Duties.

V. Superintending-Surgeons—their Duties.

VI. Surgeons' and Assistants' Duties often the same—often independent of one another.

VII. Subordinate Medical Department—their Duties, Pay, and Promotion.

VIII. Native Doctors—Medical College—Professors —Students—Education and Attainments.

IX. Hospital Attendants—Doolies.

X. Pay of Medical Officers—Retrenchments.

XI. Private Practice—Rarity of Fees—Attendance on Natives.

XII. Native Practitioners—their Skill and Practice.

XIII. Furlough, Importance of—Pay during.

XIV. Pensions, Inadequacy of—Advantages of Boon to Army, withheld from Medical Department.

Paragraph.

XV. Military Fund—Subscriptions to—Donations to—Advantages of.

XVI. Orphan Fund — Subscriptions to—Advantages of.

XVII. Lord Clive's Fund—Advantages of.

XVIII. Medical Retiring Fund—Subscriptions and Donations—Pensions.

XIX. Effects of Deceased Officers—how managed.

XX. Qualification for Assistant-Surgeons — Appointments, by whom conferred—General Nature of Services to be performed—Importance of a Hobby-horse.

XXI. Date of Rank—how regulated—Pay when it commences.

XXII. Preparations for Voyage—Comparative Advantages between the Cape and the Overland Route.

XXIII. Equipment private—Government supply all Public Stores—Wife or no Wife.

XXIV. Embarkation — Accompanying Despondency —Joys of Exile.

XXV. Voyage, insipidity of—Reserve on weighing Anchor.

XXVI. Arrival in Calcutta—First Impressions—Reporting Arrival.

XXVII. General Hospital—Quarters—Duties—Establishment—How to spend Time.

XXVIII. Servants — Number of — Inconvenience of Caste.

XXIX. Society in Calcutta—Constant change of.

XXX. Letters of Introduction—Uncertainty of Reception—Hospitality of Europeans.

Paragraph.

XXXI. Patronage—in whom vested—by what regulated—how conferred—Merit neglected—Dr. Buchanan Hamilton

XXXII. Dangers of Ennui and Hypochondriasis—Predisposing Causes—Prevalence of Insanity.

XXXIII. Seasons—Hot Winds—East Wind—Change of Monsoon—Thunder Storms—Effects of Lightning on Land and on Sea—Rains—Inundation, advantages of—Cold Weather—Season of Arrival.

XXXIV. Climate of Bengal and Upper Provinces—Effects on Strangers.

XXXV. Exercise—Early Rising—Walking *infra dig.* Absurdity of—Riding, &c.

XXXVI. Houses—Nature of—Economy of—Position of.

XXXVII. Subterranean Chambers deemed unhealthy.

XXXVIII. Effects of closed Doors and Darkness on Health.

XXXIX. Shrubberies—Opinions concerning them.

XL. Domestic Plagues—Ants, Mosquitoes, &c.

XLI. Punkahs—kinds of—advantages of.

XLII. Tatties—cooling Properties of.

XLIII. Fires and Lights—Articles in use.

XLIV. Clothing—Woollen—Cotton—Silk—Coolness of White Clothing.

XLV. Bathing—Cold, Tepid, and Shower.

XLVI. Diet—Cookery-utensils.

XLVII. Fruits and Vegetables.

XLVIII. Drinks—Ales—Soda-Water—the Scylla and Charybdis of Health—Rarity of Drunkenness—Rain-water best.

Paragraph.

XLIX. Ice—Native and American—Substitute for.

L. Smoking—Bad Effects of—Infrequency of Hookah-smoking.

LI. Amusements—Shooting—Boating—Chess, &c.—Polytechnic Institutions.

LII. Mode of Travelling—Dawk—No Mail-Coaches.

LIII. Navigation of Ganges—Insurance on—Dangers of—Best kind of Boats.

LIV. Division Station—Tooops in Cantonments—Life of European Soldiers—Means of amending.

LV. Economy of Native Regiments—Houses Black-Mail—Mess—Uniform.

LVI. Responsibility of Medical Officer—Diseases of Seapoys.

LVII. Hospital Attendance.

LVIII. Recruiting—Extension of Leave to Seapoys—Disability of Recruits rare.

LIX. Malingering—Sick-leave.

LX. Medical Duty of Civil Station—Pay.

LXI. Native Character and Diseases.

LXII. Cholera in Field and in Cantonment.

LXIII. Scurvy inland—Indigenous remedy.

LXIV. Easy recovery of Natives from Injuries—Two Cases par example.

LXV. Tetanus, rarity of.

LXVI. Malaria—its Properties and Causes.

LXVII. Marshes.

LXVIII. Rice-fields.

LXIX. Tanks and Pools.

LXX Jungle.

LXXI. Neglect of Ventilation.

Paragraph
LXXII. Ruins.
LXXIII. Predisposing Causes of Fever.
LXXIV. Dress.
LXXV. Low Diet.
LXXVI. Impure Water.
LXXVII. Bathing.
LXXVIII. Exposing the Dying on the River-side.
LXXIX. Thuggy.
LXXX. Sanataria resorted to by Invalids—Effects of Change of Air—Desire for Change amongst Residents.
LXXXI. Mode of applying for Sick-leave—Medical Committees—Proceedings at Presidency—Delays in getting Leave.
LXXXII. Hill-stations Simla and Darjiling—Comparative advantages.
LXXXIII. Mineral Springs not frequented.
LXXXIV. Trip on the River.
LXXXV. Sandheads and Poori.
LXXXVI. Prince of Wales's Island.
LXXXVII. Malacca.
LXXXVIII. Singapore.
LXXXIX. Macao.
XC. Canton.
XCI. Isle of France.
XCII. Cape of Good Hope.
XCIII. New South Wales.
XCIV. Difference of Pay on Sick-leave.
XCV. Precautions to be taken by Invalids.

MEDICAL ADVICE

TO THE

INDIAN STRANGER.

I. CONSTITUTION OF GOVERNMENT.

THOUGH every body knows that INDIA is the brightest gem in the British crown, and though most families of respectability have some of its members either resident in the country, or in some way or other deeply interested in its prosperity, yet much ignorance generally prevails respecting its geography, and still more respecting its resources, and internal economy. Before, therefore, entering upon the subject of this essay, I shall give a very brief outline of its political constitution.

The Government of India may be divided into two heads, viz., the Home Authorities, and those resident in India. Under the former are placed

the Board of Controul and the Court of Directors; and, under the latter, the Supreme Council of India, the Presidency Governments of Bengal, Madras, Bombay, and Agra, to which may be added the Straits of Malacca.

The armies of the different presidencies are quite unconnected with one another; indeed, nearly as much so, as if they belonged to three different kingdoms: each has its own grade of promotion, its own governor, its own commander-in-chief, its own territory, and its own code of laws and regulations; and, unless in general field-service, or on the frontier, the troops do not come in contact, nor interchange duty with one another.

II. MEDICAL LIST.

The regular number of medical officers on the Bengal establishment is 350; but at present there are 22 supernumeraries. The 3 seniors on the list are members of the Medical Board, the next 12 superintending-surgeons, the next 106 surgeons, and the remainder assistant-surgeons.

Members of the Medical Board rank as colonels.

Superintending-surgeons as lieutenant-colonels.

Surgeons as captains.

Assistant-surgeons as lieutenants.

By reference to the Army List, I find that the

senior assistant-surgeon has been 16 years in the service, the senior surgeon 35 years, and the senior superintending-surgeon 37 years. These periods have been progressively increasing of late years; and, unless some addition be made to the number in the higher grades, promotion is likely to be still longer retarded. Promotion is regulated by seniority alone: there is no such thing as one man's being promoted over the head of another; and the youngest assistant, if he live, may arrive at the head of the list.

III. COMMISSIONS.

Previous to embarkation, the assistant-surgeon will receive a certificate of his appointment at the India-House, for which he will have to pay £5; and, some months after his arrival in India, he will be presented with two commissions: one, signed by the Governor-General and Council, confirming him in the Company's army; and the other, by the Commander-in-Chief, conferring upon him the same rank and privileges in the Royal army in India as he enjoys in the Company's. The fees on these two commissions amount to about £4.

IV. MEDICAL BOARD.

The highest grade in the medical service is the

Medical Board; composed of the three senior surgeons of the list, with a secretary, who is either a surgeon or an assistant. Members of the Board are allowed to remain in that appointment not more than five years; after which they are obliged to retire. Their duties are to superintend the whole department, and to communicate with Government on matters relating to the service. They have it in their power to recommend officers to the favourable consideration of Government, but all appointments to office are made either by the Governor-General or Commander-in-Chief.

V. SUPERINTENDING-SURGEONS.

The duty of a superintending-surgeon is to make an annual inspection of all the hospitals in his division; to collect weekly, monthly, or quarterly reports from the different medical officers in medical charge under him; to receive and pass indents for articles wanted for the public service; to give such directions to those under his superintendence, respecting the treatment of the sick, as he deems proper; to attend to medical stores, and medical certificates; in short he is the commanding officer on medical matters in his district, and communicates the result to the Medical Board.

VI. SURGEONS AND ASSISTANT-SURGEONS.

It is not easy to draw a distinction between the duties of surgeons and assistant-surgeons, as both are for the most part independent of one another. In regiments of cavalry, and in garrisons, there are surgeons, with assistants under them; but by far the greater number of those enrolled as assistants hold independent charges, for which they themselves are responsible, the term assistant being merely nominal. No regiment of Native infantry has in general more than one surgeon or assistant. The duties of almost all civil stations are performed by assistant-surgeons. In all cases, these last are obliged to give up their appointments on promotion, or give up promotion to retain their appointments.

VII. SUBORDINATE MEDICAL DEPARTMENT.

This department is principally intended for European troops, and consists of apothecaries and assistant-apothecaries, stewards and assistant-stewards; most of them are Eurasians, and some the sons of sergeants or soldiers, who have not had the advantage of a European education. They enter the service as hospital-apprentices, on the pay of 33 rupees a month; after ten years service they are promoted either to assistant-apothecaries or assistant-stewards, on an allow-

ance of 70 rupees; and, after about nine years in that grade, they are promoted to apothecaries with the pay of 140 rupees a month, or stewards with the pay of 120 rupees. To every European regiment, whether Royal or Company's, there is an apothecary and a steward attached, with each his assistant. By a late Army List, the number of apothecaries was 31; assistant-apothecaries, 37; of stewards, 25; and of assistant-stewards, 10.

VIII. NATIVE DOCTORS AND MEDICAL COLLEGE.

Every medical officer in charge of Native troops and jails, is assisted by one, two, or more Native doctors, whose duty is to compound medicines, see that the prescriptions are taken, attend to the sick in the absence of the surgeon, as occasion may require, and perform the minor operations of surgery. Previous to 1835, these young men were educated at the Calcutta medical school, an institution superintended by the late Dr. John Tytler, expressly for the public service. The regular number of students was 67, their pay, while in attendance, was 7 rupees a month, and on being qualified for the service, they received 20 rupees, and eventually 25. The lectures were given in Oordoo. In 1835, the Tytler school was abolished, and a medical college instituted in its stead; the

number of students amounted to 50, with each a monthly aliment of 7 rupees. The lectures are given in English, and embrace a course similar to what is followed in British schools:—anatomy, chemistry, surgery, materia-medica, physic, and practical dissection. The Professors are five in number, all members of the medical department, together with a secretary and a demonstrator of anatomy. The students, when found qualified, are denominated sub-assistant-surgeons. Time is still required to ascertain how the new system answers. During the year that I filled the appointment of Lecturer in Clinical Medicine, I had the best opportunity of testing the capabilities of the students; and was inclined to think very favourably of their zeal, of their capacity, and of their attainments. My only fears were, that the want of integrity, so general in the Native character, would, notwithstanding their enlightened education, still cling to them as their birthright; and that, on any trying emergency, or dangerous personal illness, they would distrust their European doctrines, and resort to their national empyricism, or to superstitious invocations of the deities of their fathers. I trust my anticipations on this head have proved unfounded. I am not aware whether the courses of lectures delivered at the Calcutta College would qualify for taking a diploma from any of the British schools.

I have rarely found Native doctors, of the old school, worthy of trust; and on most occasions, when it was possible, saw the medicines given during the visit; still, with a rigid scrutiny and careful superintendence, they were capable of being made very useful.

IX. HOSPITAL ATTENDANTS.

Besides two Native doctors, the hospital establishment of each regiment consists of one dresser, one Hindoo cook, one Mussulman ditto, one Hindoo water-carrier, one Mussulman ditto, one sweeper, one scullion, and five palanquin bearers, for transporting the sick to hospital, in what is called a doolie (a sort of palanquin). A doolie is, in fact, a narrow bed, with bed-posts and curtains suspended lengthways from a long pole, and is borne along, the pole resting upon men's shoulders, two before and two behind. It is one of the most convenient things possible for the transport of the sick.

X. PAY.

The regular pay of an assistant-surgeon at a half-batta station, is C. R. 225 12 annas; and at a full-batta station, C. R. 256 10 annas per month. There are 16 annas to the rupee, which varies in value from 1*s.* 11*d.* to 2*s.* 2*d.*, according to the

rates of exchange. Such are the minimum rates. A surgeon, in medical charge of a regiment, draws C. R. 300 per month of staff allowance, besides his pay; but an assistant-surgeon, only C. R. 165, though both perform the same duty. Medical officers, in charge of detachments of Native troops, are allowed C. R. 12 8 annas per 100 men, and double that rate for European troops.

Assistant-surgeons, in charge of Native regiments at full-batta stations, draw per month	R 421	10
Surgeon, ditto	715	6
Superintending surgeons, above Benares	1600	0
Member of medical-board	2409	0

All stations within 200 miles of Calcutta are considered on half-batta. The difference of pay of an assistant-surgeon, between half-batta and full-batta, is C. R. 30 per month, or about £36 per annum; of a surgeon, about £48 per annum. No regiment remains on half-batta longer than three years at one time, and all the regiments in the service take their turn of such reduced allowances.

The following are the items of the monthly allowance of an assistant-surgeon, in charge of a regiment of Native infantry, on full batta:—

Pay	C.R. 60	14
Batta (full)	121	12
Gratuity	24	0
Tentage	50	0
Staff-allowance	165	0
	421	10

One of the most vexatious things a medical officer has to encounter, is retrenchment on some plea or other; and no subject is more frequently a source of retrenchment, than the above extra charges. Indeed the trouble, or rather the paper-war, necessary to get these allowances and to preserve them when got, even after they have been audited and passed, is often more than they are worth. These retrenchments are often as far retrospective as four years, and the surgeon is called on at that late period for documents that he may have destroyed, and explanations on matters that he may have forgotten, or have no means of unravelling.

XI. PRIVATE PRACTICE.

Private practice, generally speaking, forms but a small portion of emolument, especially in the interior of the country, and fees are somewhat rare. Now and then a staff-officer, or a well-paid civilian, gives something handsome; but even such

are rarer than they were wont to be. As for Native practice, virtue alone is often its own reward. The Natives are bad payers; those who get anything by way of remuneration, obtain it only by bargaining and getting paid before-hand, a system that few officers can submit to. Now and then their gratitude is expressed by a bunch of plantains, or a kid; but that virtue is of a very evanescent character. Generally speaking, the Natives prefer their own countrymen as their medical attendants on ordinary occasions, and take the advice of the European in extreme cases. To one not initiated in the customs of the East, the manner of attendance on Native ladies of rank must appear very absurd. The doctor is rarely indeed allowed to see his fair patient face to face. For the most part the lady throws the door ajar, and extends her hand through the slit for him to feel her pulse, or in the event of his being admitted to the haram, the patient lies in bed shrouded with curtains, and exposes her tongue, or the part diseased, through a hole in the curtain, made expressly for the purpose. Nor is it the young and the beautiful that are so modest and retiring, but the old, and for what is known to the contrary, the ugly also are equally careful of their person.

In Calcutta, private practice forms the principal

source of income, and many turn their residence to very good account.

XII. NATIVE PRACTITIONERS.

The practice of the Natives is at the lowest ebb, often a mere combination of quackery and superstition, and without the knowledge of anatomy or chemistry. However, they possess some medicines of great efficacy, and administer them occasionally with success; and also practice some operations with more skill than from their very rude instruments could be anticipated. The operations chiefly performed by them are depression of the cataract; lithotomy, by a modification of the lateral incision; cupping, &c. In this latter a cow's horn is used, both as cup and exhauster. The part being scarified, the base of the horn is applied, and the air withdrawn by the mouth through a hole in the apex, allowing the blood to accumulate at the base. Inoculation with variolous matter is much practised both by Hindoos and Mussulmen. Some classes make a livelihood by it. The earliest age at which they practice it is three years: not more than one per cent. die in consequence.

XIII. FURLOUGH.

Every officer is allowed a furlough to Europe of

three years, after ten years' service. During that time his pay of assistant-surgeon is about £118 per annum; if a surgeon, about £191. Every assistant-surgeon ought to take his furlough. If his health be not impaired, a return to Europe may enable him to renew his associations with home, to rub the rust off his mind, revise his medical studies, and advance his knowledge, fallen far behind the van of science.

XIV. PENSIONS.

Previous to 1836, officers of the line were, after 22 years' service, allowed to retire on the full English rate of pay of the rank they held at the date of their retirement; but, from the extreme slowless of promotion, many instances occurred of officers having served 22 years before being promoted to captain; and, consequently, in the event of their wishing to retire, not entitled to more than £118 of pension. The pensions assigned to the medical branch were regulated by the same law, with the consideration of having 17 years fixed as the period of their service. A surgeon, after 17 years' actual service, gets £191 per annum. A superintending surgeon, who has held that rank for two years, £300; and a member of the Medical Board, who has held that office two years, £500; and, after holding the same five years, £700. From

the inadequacy of these pensions preventing officers retiring from the service, Government, in 1836, found it necessary to abrogate these rules, and to assign pensions, not according to rank as formerly, but according to length of service. Thus, an officer, after 20 years' service, is allowed as pension the full pay of captain, or £191; after 24 years, the pay of major, or £292; after 28 years, the pay of lieutenant-colonel, or £365; and after 32 years, the pay of colonel, or £456. This was, no doubt, the greatest boon that was conferred upon the army for many years; but, most unaccountably, the medical department were not included in the boon, but allowed to remain as ill provided for as before. Thus, the senior surgeon on the list has been 35 years in the service, and he would be entitled to only £191 pension, the same sum that he could have claimed 18 years ago: in other words—a surgeon of 35 years' service, is allowed no more pension than one of 17 years.

It is much to be regretted that any such distinction should have been made, for the medical service have considered themselves most invidiously, most unfeelingly, excluded. Indeed, it would be impossible for them to think otherwise; for a reference to the Army List will show, that if it were called for generally, it was no less wanted amongst medical officers. The time has gone by, when doctors in India were certain, in a few years,

of being able to retire on large fortunes. A moderate competency, while in service, and a miserable pension after they have completed their period of service—a pension about one-fourth part of their Indian allowances—is all they can now contemplate. Those who joined the service 20 years ago, were generally promoted to surgeons in 10 or 11 years; but promotion is now so far retarded, that few of those of less than 10 years' standing can be expected to be promoted to surgeon in less than 17 years. Notwithstanding, the old mode of granting pensions by the rank attained is still unremedied, and the prospect is rendered the most disheartening by their being excluded from the general boon conferred upon the great majority of their brother officers.

XV. MILITARY FUND.

Medical officers are obliged to subscribe to the above fund. Assistant-surgeons pay, if unmarried, a donation of 180 rupees; 60 more on promotion; and 180 more on marriage, besides a monthly subscription of 5 rupees. Assistant-surgeons, if married, pay a donation of 360 rupees; 120 more on promotion, and a monthly subscription of 10 rupees. All subscribers proceeding to Europe on sick certificate, and not possessed of property to the amount of 5000 rupees, are entitled to 1200

rupees to provide a passage home; and the same sum for passage on returning: they are also allowed 400 rupees for equipment before leaving Calcutta, if not possessed of property to the amount of 2000 rupees. Assistant-surgeons are likewise entitled to £50 per annum while on sick certificate in Europe, if not possessed of an income (exclusive of pay) to that amount.

The widow of an assistant-surgeon is allowed an annuity of £102; and if deceased have subscribed as a captain, major, or colonel, to £136, £205, and £342 respectively.

XVI. ORPHAN FUND.

All medical officers are obliged to subscribe to the Orphan Fund. Assistant-surgeons pay 3, and surgeons 5 rupees a-month. From this fund a provision is made for the unprovided orphans of subscribers, the conditions of which are too complicated to be here detailed, but the following are the principal:—

All children of either sex, transferred to the care of their relations in England, are allowed £30 per annum if under 6 years of age; for boys above 6 years of age, £40; and girls £45. Both, on attaining the age of 14, are allowed a donation of £60, to assist them to enter upon some profession.

XVII. LORD CLIVE'S FUND.

This fund arises from a sum of money, set apart by Lord Clive, for providing pensions for officers wounded or worn out in the service; and also annuities for the widows of officers. The advantages are open to all officers of the service; and without subscription. Assistant-surgeons, unfit from bad health to remain in the service, receive an annuity of £45; and surgeons, of £91, besides the half-pay of Ensign if of 6 years' service, and half-pay of Lieutenant, if of 13 years. The widows of medical officers get one-half of the above sums from the fund.

XVIII. MEDICAL RETIRING FUND.

The object of this fund is to afford every year six annuities of £300 each, to all surgeons who have completed their period of seventeen years' service; as also to increase promotion, by withdrawing so many annually from the higher stages of the list. All medical officers are obliged to subscribe to this fund. The subscriptions vary according to rank and standing; the lowest rate being 12 rupees, and the highest 256 rupees a month. Each subscriber must pay a donation of four months' subscription on joining. Before a subscriber can be admitted to an annuity, he must

have paid 15,000 rupees into the fund, or one-half the value.

This fund, though only established within the last few years, is of the very utmost importance to the medical service; for, without it, very few indeed could retire before a period of thirty years. The subscriptions, no doubt, are very heavy, being in many cases a tenth or an eighth part of the subscribers' allowances, and very embarrassing for many to pay; yet, they are thus forced to be provident, and to lay by a store for their declining years, to make up for the inadequacy of their pension.

XIX. EFFECTS OF DECEASED OFFICERS.

When an officer dies in India, he generally leaves a will behind him, appointing one or two officers, or some mercantile firm, as his executors, who wind up his affairs as directed, and remit the proceeds to the nearest heirs. When no will is found, or when the executors mentioned decline to officiate, the concerns of the deceased are managed by the Registrar of the Supreme Court, who withholds a per centage for his trouble.

XX. QUALIFICATIONS FOR APPOINTMENTS.

Such are some of the principal advantages of

the East India Company's service. I shall now take a brief glance of the ways and means of getting an appointment. Almost all appointments to the medical service are in the gift of the Directors. At certain seasons of the year an estimate is made of the probable wants of the service, and these are portioned out amongst the Directors, each having an equal number, and the Chairman double patronage. The following are the qualifications for the appointment of assistant-surgeon: —He must not be under twenty-two years of age, though there is no limit as to age above that. He must have a diploma from the Royal College of Surgeons of London, Dublin, or Edinburgh, of the University, or of the Faculty of Surgeons of Glasgow. Should the candidate not have a diploma from one or other of these, he will be directed to appear before the Royal College of Surgeons of London, whose certificate of his efficiency will be deemed satisfactory by the Court of Directors. He will further be called on to undergo, in either case, an examination in medicine before the Company's physician. This examination has always appeared to me superfluous; for the diploma of any of the Royal Colleges of Surgeons ought to be considered as good as to the candidate's skill in medicine as in surgery. But the greatest hardship is, that he is put upon his trial, at a time when, above all others, he is least

able to do himself justice. The perplexity of preparing for the voyage, regret for parting friends and native country, suspense for the result of the examination, and anxiety for the future, distract his attention completely, and drive all professional knowledge out of his head. After this examination, he will be qualified for taking the oath of allegiance to the Company, and become a military man; and must embark within three months from the date of being sworn in.

In India, no distinction is made between the practice of medicine and surgery; every officer must act in either capacity, as circumstances demand, which is much more rational than drawing a line of demarcation, which does not exist in nature; in fact, the medical man, in India, must exercise his profession in the most comprehensive sense of the word; must, in conjunction with his more regular duties, act the part of aurist, oculist, accoucheur, chemist, and medical jurist, as occasion presents itself. But this is not enough, he ought to be able to physic his own horse or dog, superintend the construction of his own house, or boat, or baggage-waggon, know how to grow green-peas and cauliflowers, how to fatten capons and sucking-pigs, how to make jug-soup and tapioca, how to shoot wild-geese, ride a steeple-chase, drive a cabriolet, and sail a cutter, how to balance the debtor and creditor side of his

monthly-accounts to the utmost farthing, how to calculate half-batta in vulgar and decimal fractions, and how to argue, logically, against retrenchments. To these moderate qualifications it will be desirable to have some favourite pursuit to follow, when he has nothing else to do; he may expect to be left much to himself; to be cast entirely on his own personal resources; and happy will it be for him if he have a taste for painting, or poetry, or music, or some similar recreation, and be able to mount his hobby independent, and take a quiet canter along the monotonous track of life assigned him.

XXI. DATE OF RANK AND PAY.

Government makes no allowance for passage, nor does the pay commence, nor the service count, till he arrive in Calcutta, and report himself to the authorities there. The sooner, therefore, he gets on board ship, the better. Another inducement is, that his rank in the army is dated from the day on which the ship leaves London, according to Lloyd's List. A day or two lost at this period might retard his promotion as many years at a future time. With due deference, I think this mode of assigning rank objectionable; for example: the ship A. leaves Gravesend on the 1st January, and proceeds to Portsmouth, to complete her cargo and take in passengers, and

eventually leaves Portsmouth on the 10th January; the ship B. leaves Gravesend on the 2nd January, all ready for sea, and touches nowhere, nevertheless the officers on board of A. rank before those of B. This is not a hypothetical case, for a similar one happened to myself. I should think the fairer way would be from the date of leaving the pilot, as is in use in dating one's departure from Bengal; or probably the fairer way still, would be to assign rank from the date of arrival in India, or taking the pilot on board.

It sometimes happens that two or three assistant-surgeons embark in the same ship; in such cases, he who was appointed by the most Senior-Director takes precedence of the others. Though most officers sail from the port of London, there is no objection to their embarking at any other port, as Liverpool or Glasgow.

XXII. PREPARATIONS FOR VOYAGE.

As soon as the Assistant-surgeon has been sworn in at the India-House, he should make arrangements for the voyage. This may be made either overland *via* Egypt, or by the Cape of Good Hope. The voyage from London to Bombay *via* Egypt, may be made in about five weeks; but as there is as yet no regular steam-conveyance from Bombay

to Calcutta, a month or more, according to the season, will be required for that alone. The passage by the Cape requires from four to five months. The expence of the overland route is greater than by the Cape. The former requiring about £150, the latter £120. Opportunities occasionally occur of getting a free passage, on condition of performing the medical duties of a passenger-ship. This, to a young man entering upon life with a moderate purse, ought to be very acceptable; it will give him some occupation, and a little practice during a wearisome voyage, and he will find the passage-money saved of great assistance on his arrival.

XXIII. EQUIPMENT.

He ought to be careful not to overburthen himself with baggage; there are few things that he may not get as cheap, or cheaper in Calcutta than in London, provided he goes to purchase them in the right way. He cannot go wrong in taking a well-filled wardrobe with him; and as for uniform, he ought not to take more than a forage cap, a red shell jacket, and blue surtout, with sword and belt, patterns of which he can see at any house of East Indian agency. He will do well to leave his measure, and form a connection with some respectable tailor in London, from whom he can

procure clothes at half the price he will be obliged to pay European tailors in Calcutta.

Government furnish all instruments and medicines for the public service, from an amputating case to a lancet, from calomel and opium to arrow-root and linseed-meal. However, he will do right to provide himself with a complete pocket dressing-case, and a small portable medicine-chest, which he will find very useful when unattached, and when he has no access to the public stores. A select little library of the latest medical works should not be forgotten; books on general literature, he will find cheaper in Calcutta than in London.

A portable canteen, and a tool-chest, if he have good mechanical hands, will both be very convenient. All medical stores are kept in the Presidency Dispensary, which is in charge of the apothecary and the deputy-apothecary, the one a surgeon, and the other being an assistant. There are branch dispensaries in the interior, particularly at Cawnpore, Agra, and Neemuch, and from one or other of these all medical stores for the public service are supplied.

All instruments, and the greater number of medicines, are imported from Europe. At present, attempts are being made to have most of the medicines manufactured in Calcutta.

Many very useful medicines are to be obtained

at a cheap rate in almost every bazaar, and a discretionary power is granted to all medical officers, to purchase these for the public service, and charge the same to government in a monthly contingent bill. Leeches are easily provided in any quantity, and seldom cost more than two rupees per hundred.

There still remains one part of equipment on which to say a word, and that is a wife. If he have means to support a wife, besides his pay, by all means let him make himself happy; if he have not, let him remain single, for he must unavoidably get into debt. No-where are the advantages of female society more valuable than in India; for much time is necessarily spent at home, which, without a companion, would be dull and disagreeable. Bachelors are very liable to get into scrapes and go upon the sick list, and too often sow the seeds of disease that may embitter their future lives; or, to form left-handed connections with Native females, of which they will eventually repent, evils from which a married man is exempted. Nevertheless, there are many drawbacks to the married state, peculiar to India; in the event of having children, they are sent to England before they are six years old, as few thrive well after that age. Thus the father is bereft of his offspring, at a time when they are most interesting; and the mother, if she falls sick, returns to England also

leaves him in a state of widowhood, and involves him in expences, which almost no young assistant-surgeon can afford.

XXIV. EMBARKATION.

The day of embarkation is an eventful day in the career of all men, and to many, pregnant with sorrow and regret; with a sort of indescribable anxiety and impatience to be away, apparently at variance with the domestic ties that bind his affections to home, and the patriotic glow that makes him feel his country more dear. There is a time when the remotest point of our native land beams upon the eye of the stranger, returning from a distant clime, with joy and delight; and the more hardships and adventures he has undergone during his absence, and the greater the dangers and escapes from the winds and the waves, and the rocks, and the sands, he may have encountered on his return, the greater is his appreciation of the same. But there is also a time when our native shore hangs upon the eye with weariness and pain. When he has wound up his resolution to become a wanderer from its congenial sky, when he has, with a tear on his cheek, and no word on his tongue, rent asunder the affectionate ties of relations and friends, and looked a long adieu to their society and friend-

ship; when he has launched into the deep, and, for days and nights in succession, had nothing to rest his weary eyes upon but a rolling sea, a threatening cloud, or some sea-bird screaming wildly on the waters; when the wounds of his lacerated feelings are beginning to heal, and the diluted balm of forgetfulness has been poured upon his most sensitive sensations of remembrance; it sometimes happens that he is, by the caprice of tempestuous winds, buffetted back to the shores from which he had so recently parted, his tender kindly-healing wounds are torn open afresh, and for the time he would almost wish his beloved isle transported to a more remote quarter of the Northern Hemisphere.

But let him not despond, he has from the weighing of the anchor enrolled himself a citizen of the world; he carries his home and all its associations, like the penates of the ancients, cased in his bosom. He will find that these will protect him in all his wanderings; that exile is not so bad a thing as he anticipated; nay, that the exile has an enjoyment of his native home that the landsmen can never know; that ethereal creations, phœnix-like, arise from the ashes of his partially-forgotten country, and gratify the imagination more than the realities themselves did.

The hospitable-man, who would gain most on the good opinion of his guests, places before them

some national piece of cookery; the favorite picture in the drawing-room of the amateur, is some homely landscape characteristic of the days of his boyhood; the most admired character at a fancy-ball, is some old costume of the by-gone time. I have seen the man that was insensible to the higher compositions in music, struck with delight at hearing a pet minah whistle three or four notes (being all it had learned) of some old Scottish song. I have seen the eye of the veteran, as he lay at anchor on the shore of the Ganges, fill with tears of ecstacy on listening to a once familiar tune, played by one he knew not, on board a boat floating down the stream. I have seen a son of the mountain and the flood burst into a transport of joy, on espying the snowy peaks of the Himalayah, after long years of residence in the plains, and hail them as friends of his youth. Such concentrated essences of enjoyment as these are worth years of the maudlin sentimentality that often creeps through the sensorium of the man that lives at home at ease; and no brighter incense is offered upon the shrine of patriotism, than by the exiled wanderer in a foreign land.

XXV. VOYAGE.

The voyage round the Cape is very likely to be tedious and insipid; but he who has a taste for study, and a desire to improve, may turn his time

to very good advantage. He ought to devote a portion of every day to revising his medical studies, to reading works on general subjects, and particularly those bearing upon the history of India; and should any of his fellow-passengers be acquainted with Hindostanni, and be willing to oblige him with a little advice and assistance, he cannot spend two hours a-day better than in acquiring the language of the country of which he must soon become a resident. In general, much shyness and reserve prevail amongst the passengers on first starting; and probably a good deal of this may continue during the voyage; but this, when not based upon unfriendliness, or a desire to disoblige, is likely to contribute more to the comfort and good understanding of the shipmates, than too much familiarity. Misunderstandings, and personal quarrels, and party feuds, are no uncommon things on board a ship full of passengers; and the outward-bound voyage is more remarkable for these than the homeward. When there is such a disparity in the years, and pursuits, and associations of the parties, as exists on board an Indiaman, a certain degree of discretion and reserve is almost necessary; and, like the envelopes in a case of oranges, or the dunnage of the ship's cargo, prevents uncongenial elements from chafing one-another, and keeping every one in his proper place.

XXVI. ARRIVAL IN CALCUTTA.

Dreary as the passage may be, and frequently as he may have wished it at an end—yet, when the voyage draws near a close, he will wish it were otherwise, and will feel averse to quit the ship: he will feel that he has become a member of a new family; and that he has contracted new affections and new associations, the strength of whose ties he, till they were put upon the stretch, was not aware of, and which must speedily be broken. Even the ship comes in for a share of his affections, and he parts from her with a feeling something akin to what he felt on quitting his native shore.

He now lands; houseless, homeless, friendless, companionless; a stranger for the first time on the shores of a foreign land; and learns to appreciate that solitude in the midst of numbers—that converse of society where none intrudes—without so much as the luxury of an enemy (for there are times when even that is desirable) to give a fillip to his jaded thoughts. Every thing is strange to him; groves of palm-trees meet his eye on every hand; he sees the foot-prints of the tiger upon the mud deposited by the last high tide; jackalls meet him on his walk, and hardly move out of his track; and monkeys mimic the cries of dying innocence, in the adjoining copse; he sees the alligator basking upon the sand-bank like a log of wood; vultures and adjutants flapping each other with

their wings, as they float by him, rafted on a dead Hindoo; vampire-bats skim silently through the evening-air in search of prey; fire-flies glimmer and gyrate amongst the blossom-laden forest-trees; his ear is assailed and stunned by the noise, the buzz, and hum, and hiss, and clatter of ten thousand insects. The native tom-tom sounds from the bazaar of a neighbouring village. The houses are mere wigwams, shrouded in most luxuriant vegetation. The people are almost naked, or clothed in muslin robes, with silver rings upon their ankles and their arms, their fingers and their toes, and golden ornaments in their ears and their noses. He is agreeably surprised to find them so fair; and more so, to find them more handsome, and with more regular, and finer-turned features, than his own countrymen: graceful in their gait, easy and polite in their manners; and in their intercourse highly polished and civilized; speaking an unknown language, and yet making themselves understood; kneeling in prayer along the highways, regardless of the turmoil around them, or pouring out libations into the sacred stream.

The best thing the Assistant-surgeon can do, is to go to Spence's or Benton's Hotel for a week or two, till he makes arrangements for entering the quarters assigned him, at the General Hospital.

On the very day of his arrival, he ought to put his best-coat on, throw himself into a palanquin,

and report himself to the Town-Major, the Adjutant-General, the Secretary of the Medical Board, the Superintending-Surgeon of the Presidency division, and the Surgeon of the General Hospital. He must not expect much cordiality, or condescension, or fellow-feeling in such visits, nor any thing more than formal civility. I have known young men return from official visits with disgust, at the coldness of the reception, retiring to their quarters in tears; and were it not that they had staked their whole upon the die, and had no other prospect of a livelihood, they would have broken their sword over their knee, torn their uniform into rags, and abandoned a service that promised to be so little congenial to their feelings. But such a generation, it is to be hoped, has now passed away. If officers in such offices knew the comfort imparted to the griff by a kind demeanour, or a friendly inquiry, they would hardly be niggardly of such trifles.

XXVII. GENERAL HOSPITAL.

The Assistant-surgeon may expect to be two or three months at the General Hospital, with no duty to perform but merely to accompany the surgeons in their visits, to habituate himself to the diseases peculiar to the country, and the treatment put in practice. He will have one or two rooms allotted

him in the General Hospital, but entirely unfurnished. He must, therefore, buy a set of camp-tables, two chairs, a brass basin, a few pots and pans, and some crockery, taking care to have as few superfluous articles as possible. He must also engage a few servants, and set up a bachelor's establishment. He must now consider himself in the vortex of Indian society, must conform to the manners and customs of his compatriots, must submit to the numerous prejudices of caste amongst the Natives, and be contented; he must be constantly upon his guard against anger, for he will have much to irritate him; and on no account give way to beating his servants, a practice too common amongst new-comers.

He will be somewhat disappointed in the small number of patients in the hospital, and wonder why such magnificent buildings, and so large an establishment, is not turned to more account, and made more generally useful. 'Tis pity that it should be so, for there is no want of candidates for admission; and many Europeans are obliged to enter the Police Hospital, who would much prefer the accommodation of the General Hospital. If Government were to make admission to the hospital gratuitous, or one-half less than is now charged for certain patients, the hospital might be filled; the medical officers would have more ample scope for their talents; and, as a

school for initiating the young surgeons, it would be much more valuable. He will find the Native Hospital, the Eye Hospital, the Medical College, and the Sudder Jail and Hospital, well worthy of a visit, as well as the meetings of the Medical, the Asiatic, and the Agricultural Societies; but he should weigh his income well before he becomes a member of either. His grand object ought to be to keep clear of debt, if possible; and he will find it for some time a difficult matter to avoid it: but if he escape that rock now, he may expect to make matters meet more easily thereafter. He should not fail to attend all other public meetings; for though they may not be quite congenial to his mind, they are, nevertheless, good schools for initiating him into the customs of the country.

XXVIII. SERVANTS.

He will find it necessary to keep the following servants:—1 bearer, or footman, at 7 rupees a month; 1 kidmutgar, or table-attendant, at 8 rupees; 1 mussalchee, at 4 rupees; 1 washerman, at 6 rupees; 1 sweeper, at 4; 1 water-carrier, at 4 rupees. If he keep a palanquin, that will cost him 30 rupees a month more; but few do that, as they can hire one at so much a day, when wanted. Though this is the smallest possible establishment of servants, it will no doubt appear a great deal;

but the curse of caste renders such unavoidable. Every man has his particular duty, to which he adheres most religiously. One man will brush boots and shoes, but would not remove a plate from the table, though threatened with a drawn sword: he who removes a plate from the table, would scorn to wash it; and he who cleans knives and forks would think it an unpardonable outrage to be asked to sweep the floor. After all, an establishment of servants is cheaper than in Europe: they are generally honest in the weightier matters of the law; but most of them will cheat a little, and not be satisfied unless they pocket six or eight per cent. of all the money that passes through their hands. However absurd and inconvenient their prejudices may be, the European will do well not to interfere with them, as he will be a loser in the end, both of temper and time, and money also.

XXIX. SOCIETY IN CALCUTTA.

Most Assistant-surgeons spin out their time at the General-Hospital, and see very little of the society of Calcutta, and he may think himself fortunate should he have an opportunity of mixing occasionally with some family circle. There are so many big-wigs in Calcutta, that the young medical is lost in the galaxy. Nobody knows a

stranger, unless the stranger makes the first advances and calls; and this is so repugnant to the young man's feelings, that he prefers living aloof, rather than run the risk of being thought presumptuous in obtruding himself on any one's notice. He will find that old residents do not like being bothered with young slips like himself; in fact, they look upon all new-comers as children, of a larger growth, known by the appellation of griff, and, during the period of their griffinage, they are often considered fair game, and a butt for ridicule.

The population of Calcutta, including its suburbs, as ascertained by a recent census, amounts to about 430,000, of whom only about 3000 are Europeans; 4000 Eurasians; 3000 Portuguese; and the great majority Hindoos and Mussulmen. No society undergoes a greater fluctuation than Calcutta, many of them are mere birds of passage, and the greater number of those resident are constantly changing appointments, perhaps, to be replaced by strangers from the Mofussil (as the interior is called), so that, with a few exceptions, the society, in course of five years, is completely changed. Hence many are indifferent about cultivating acquaintances, that they know they are liable speedily to lose; and certainly less sociality exists, than would be the case were all the residents permanently fixed.

Calcutta may be aptly compared to a grand hotel, where travellers meet, not only from all parts of India; but from all parts of the world, a sort of epitome of human life. There assemble the young cadet, high in hope and eager to launch out into the career he expects to conduct him to fame and to fortune; the veteran, wearied with the weight of honors, worn out before his time, panting to return to the land of his younger years; the invalid, with step still unconfirmed, and the hectic flush upon his cheek, preparing to embark for a more congenial clime; the interesting spinster, with the rose of England yet upon her cheek, and the glow of passion around her heart, deeply skilled in the mysteries of love; the maiden, all forlorn, after many an unsuccessful campaign; and the young widow in her weeds, and in her teens, both intent upon the homeward voyage; the Mofussulites taking their annual spell of recreation; some sending children to Europe, others receiving children they sent home fourteen years before; some parting with wives, others receiving wives, whose plighted troth they had received ere they left their father-land.

XXX. LETTERS OF INTRODUCTION.

In few things is the stranger more deceived than in the returns he receives from letters of

introduction, or "tickets for soup," as such are called by those who know their value. He will do well never to calculate on more fruits from them than a little formal civility, and at most a dinner, and when more than that is forthcoming, he should consider it surplus gain. Nor is it wonderful that such should be the result, considering how letters of introduction are usually got up; that they are mere attempts to transfer interest from one to another, through the influence of a third party, and, like regular bills of exchange, they are sometimes overdrawn, and when presented for payment, no assets are found. In fact, I consider most letters of introduction as dampers to genuine hospitality; the resident gives the stranger a good dinner, as a thing he could not help, and without the gratification of having given it as a free gift, from the impulse of his own benevolence; and the stranger receives it, not as a pledge of any quality of his own having giving rise to the compliment, but as a debt transferred to him by an individual, perhaps, known to him only by name. Still it is agreeable to receive attentions under any such introductions, but how much more so, when one has no claim of any kind?

I by no means wish to insinuate that Indian society is deficient in hospitality; on the contrary, no part of the world excels it in this virtue, and the frankness with which it is extended, is one of

the most agreeable features in Indian manners. This is particularly conspicuous in the interior, where, from the want of inns, such is most needed; the door of every house is open to the traveller, and a hearty welcome within. Indeed, most people esteem it a compliment to have a draught made upon their hospitality, and would feel annoyed at any one's passing their abode, without being allowed an opportunity of exercising what they consider a duty, and would be apt to conjecture that the passer-by did not give them credit for the possession of so much liberality.

XXXI. PATRONAGE.

Patronage is divided beteen the Governor-General and the Commander-in-Chief: to the latter belong all appointments purely military; and, to the former, those in the civil or political department.

Patronage in India, as in most other parts of the world, has too often been dispensed, not according to merit, but according to the interest, in the ordinary sense of the word, possessed by the candidate for preferment. It has, nevertheless, been customary to prepossess the public mind with the idea that a system, the reverse of this, exists; and to hold out assurances of reward to all who should distinguish themselves in the cause of government;

But experience has too often shown the fallacy of these promises; that the promised rewards evaporated, and were rarely forthcoming; and that government, having reaped the benefit, allowed the performer to be forgotten; to look forward for some new field in which to exercise his talents, and sow the seeds of hope, which he was never destined to reap.

The effects of this system were strikingly evinced in the late call of the Governor-General for statistical information. Of 350, who might have contributed, only a fractional part came forward; and not more than three or four treatises found their way to the public eye, in printed pages. This was owing to no want of ability, or inclination to write, and no want of subjects to write on; but to a conviction, that even in the event of their essays being approved of, they would, judging from previous usage, get nothing for their trouble; that their most elaborate treatises would, as usual, run the risk of being laid upon the shelf, to be examined, at some future period, by some official interpolator; perhaps to be doomed to posthumous fame, obscurely re-echoed by some after compiler —the hand that wrote it in the sepulchre.

I don't mean to advance that this is universally the case; for there have been Governors-general who expressed their unqualified approbation of public duties well performed, and rewarded them

by well-paid appointments; and none have been more liberal than the Earl of Auckland, now at the head of public affairs in India; but much still remains to be done to dissipate entirely the general distrust in promises of rewards; to root out the apathy engendered by his Lordship's predecessors, and to engraft upon the public mind the confidence of every man's being rewarded according to his merit. The medical service, as a body, yield to none, in a well-grounded education, and a diversity of talent, well fitted to advance the cause of science in all its departments; but, where extra-professional services are required, and satisfactorily complied with, some adequate remuneration is necessary, to ensure a continuation of them.

Who that has perused the very able manuscripts of Dr. Buchanan Hamilton, can help regretting that these were not given to the world when their author was alive—able to superintend their publication, and capable of enjoying the increased reputation, which they would undoubtedly have secured for him. 'Tis true, that three large volumes have lately been extracted from them, and published, under the title of "Eastern India," but the author's name does not appear on the title-page—that place is occupied by the transposer—and none but a reader that pries curiously into the introduction, could find out that Dr. Buchanan's

"arrangement, and his language also, has, in general, been retained," as the editor, Mr. Montgomery Martin, confesses.

I am unwilling to speak uncharitably of Mr. Martin's compilation, for the public are indebted to him for rescuing from oblivion, what might for long, perhaps for ages, have lain entombed in the India-House. Nevertheless, I cannot help regretting that he did not shew more regard to *suum cuique tribuito*, and stamp the original author's name on his own production. Dr. Buchanan Hamilton was one of the brightest ornaments of the service to which I have the honor to belong; endowed with a versatility of talent that falls to the lot of few; intrusted with high offices and responsibility, which called those talents into play, and capable of chronicling his own proceedings in elegant language. I trust, therefore, I may be allowed to assert the claims of a deceased brother officer, without the charge of officious interference.

XXXII. DANGERS OF ENNUI AND HYPOCHONDRIASIS.

The stated period for Assistant-surgeons remaining at the General Hospital is four months; but latterly few have remained so long there, and most are willing to be off before the first two months

are over. This is the most trying period in the assistant-surgeon's career; perhaps the most critical of his life. Hitherto, he has been kept in a state of agitation; every hour has presented to his wondering eye something new, and therefore something gratifying; he has been sated with variety, almost to intoxication, and has had only one drawback to complete his happiness, viz., the want of some dear friend or companion to enhance his enjoyment, by socially sharing it along with him. But the novelty of his arrival has now passed away; the flood-tide of excitement has turned, has ebbed and neaped, and left him stranded upon the rocks of ennui. He sees every one around him busy but himself,—every one too eager in the pursuit of his own affairs to pay any attention to a stranger; he has delivered his letters of introduction, and some of the addressed have left their cards at his quarters, or invited him to a dinner, and there the acquaintance has ended. He feels himself idle, indolent, solitary, and unfriended, and becomes unsettled, dispirited, perhaps home-sick, and miserable.

Shakspeare says, "There is a tide in the affairs of men;" and with equal accuracy might he have said, there is a tide in the spirits of men. There are, in the sensorial ocean of man's existence, as many fluctuations as in the two Atlantics: the spring-tides of prosperity and the neap-tides of

adversity, the stagnations of indolence and the oscillations of indecision, the currents of self-interest, the counter-currents of discretion, the tornadoes of passion, and the calms of contemplation; and each and all of these are so much affected by passing events, revolving in their eccentric orbits, and eliciting phenomena peculiar to themselves, that the mental capacity is as it were churned into foam by the commotion, effervesces and evaporates, leaving the brain dry, the sensorium a moral quagmire, often a slough of despond, a hot-bed of morbid phantoms and metaphysical miasmata. It would be very instructive to peruse a journal of the various affections which glance through the mind, even of the best-regulated individual, for one single day. How often would he be unable to assign any substantial reason for a flow of good spirits, or a cloud of melancholy? What trivial events would be seen to kick the beam of his equilibrium from one extreme to the other? How often would he find that one portion of his mental faculties is preyed on by another? as if the real ills that flesh is heir to were not enough to make man sufficiently wretched, and put the prospect of any permanent happiness beyond the bourne of sublunary things; but that he must needs conjure up the creations of a morbid fancy, to transpose his condition from a quiet, an undisturbed, and an unconsciously com-

fortable existence, into one beset with all the evils of his nature.

So far is this uncontroulable propensity carried, that I believe we are more afflicted by imaginary and preconceived evils than by those that actually befall us. In so far as we are personally concerned, there are two fixed points between which our anxiety vibrates, viz., our worldly prosperity and our bodily welfare. When we are in perfect health, how often do we anticipate mischances that never happen, reverses of fortune that never have recurrence, and fret ourselves into an actual fever in consequence. When our affairs are prosperous, then we grow diffident of our health, and imagine the seeds of some of the most formidable diseases of the country sown in our constitution; and these embryo ideal creations we watch with utmost circumspection, till some other more palpable symptom of some other disease engrosses our attention, to be in its turn replaced by some other equally speculative. This is an endemic under whose effects a large proportion of medical students labour; and, from my experience, I believe it to be more infectious amongst new-comers in India than at any other part of their career.

While a proper degree of precaution is absolutely necessary, too much nursing, and anticipation of Nature's mysterious laws, is hurtful. I have seen this carried to ridiculous extremes. One

was afraid to walk off the high-road, lest he should tread upon a cobra; another would not eat a mango, lest it should give him dysentery; nor drink a glass of wine, for fear of liver; nor sleep, in the hottest weather, with a door open, for fear of rheumatism; nor sit under a punkah, with Fahrenheit at 90 degrees, for fear of catching cold; nor allow the breath of heaven to pass through his chamber, lest it should be laden with disease. Nothing is more common than for them to construe a slight cold into a galloping consumption, a head-ache into the commencement of a remittent fever, a bilious attack into cholera, *tinnitus aurium* into apoplexy, and a spasmodic twinge under the ribs into hepatitis. In fact, every trifling tumefaction is magnified into a mountain; but the mountain, instead of being, as was supposed, parturient of all the evils of Pandora's box, generally ends in misconception, or in bringing forth nothing but its legitimate mouse. Such meagrims are very natural, at least they are very common; and they will leave the stranger in course of time, and with increased experience; but he may save himself a deal of anxiety by being forewarned of their approach. I don't mean to plead exemption from such nonsense: on my first landing, I had also my share of them, but never knew them to end in any thing serious. The most formidable illness I ever had

was a jungle fever. It came upon me in camp, like a thief in the night, without warning; and, while fast asleep; I had as narrow an escape with life as possible; yet my forebodings, during my long illness, were not of the most forlorn nature; and I have looked forward to the issue of a diarrhœa with as much concern.

Experience will show, that too much solicitude about one's health is seldom of any service. One is never so apt to catch an inflammatory complaint as when he is guarding most against its predisposing causes; and it is a well-known fact, that none are more frequently victims to cholera than those who are constantly taking precautions against it.

Another great error strangers are liable to fall into, is the habit of taking medicine, converting their stomachs into pharmaceutical laboratories, and drugging themselves into a state of disease. Not contented with letting Nature take her own way, they force her to take a way of theirs; and drive her so hard in the new system of regimen, that she in time forgets her own, and only recovers it with great difficulty.

The *vis medicatrix naturæ* is an imperious dame, that won't bear dictation, and seems to resent too officious interference with her regulations of the constitution, as much as she plays well her part when some sudden mishap takes it at a disad-

vantage; a regular coquette, and not to be won by direct addresses and straightforward courtship. Ask her for sleep at a given hour, and she will most likely deny it, and perhaps perversely pester you with it at a time when you least want it; when you are most hungry, you will have a long hour-and-half to wait for dinner; when most thirsty, furthest distant from the well; and, when most fatigued, you will have still a "gude lang bittack" to travel.

On the other hand, this *vis medicatrix* is never more provident than when accident takes us by surprise. If a grain of sand fall upon the eye, a gush of tears will be instantly discharged, by which the offending substance is washed away; if any extraneous substance be received into the trachea, violent coughing will instantly ensue to eject it; if any dangerous poison be taken into the stomach, it will most likely be thrown up again by vomiting; and if any thing crude or offensive lodge in the intestines, diarrhœa will ensue, and generally carry it off. If a man lose the sight of one eye, that of the remaining eye will become more acute. People born deaf, have generally remarkably good eye-sight; and the senses of hearing, touching, tasting, and smelling, in the blind, strike us with surprise at their perfection. We cannot make a stumble without being conscious of her efforts to avert a fall; and, if we

do fall, she will so arrange matters as to make the fall as soft as possible; and should we be unexpectedly exposed to great hardships and privations, she will enable us to surmount them with impunity, when, in ordinary circumstances, they would be followed with most untoward consequences, or perhaps with death.

Of the truth of this assertion, I can speak from dearly-bought personal experience. I have already alluded to my having suffered severely from a jungle fever, contracted on field-service. While proceeding to Van Dieman's Land, for the recovery of my health, the vessel was cast away, about one in the morning, upon the desolate island of Amsterdam, with the loss of seventy-six lives. I swam ashore, almost naked, a few minutes after the ship struck; sat on the bare rocks, under heavy rain, till daylight; clothed myself in various pieces of dress, as they lay on the shore, and let them dry on my person; subsisted upon putrid rice, and brackish water, and half-roasted sea-birds; and, for fourteen days, underwent all the concomitant hardships inseparable from such a state of uncertainty and destitution; yet, I never caught so much as a cold.

He who would rear the most thriving tree, will plant it neither in the hot-house nor on the mountain-top, neither in the bosom of the shady forest, nor on the margin of the stormy sea. On

arriving, for the first time, in a climate in so many respects different from his native land, the stranger must be prepared to expect some trifling complaint; but temperance and discretion are his best directors. Above all things, let him beware of hypochondriasis, as the greatest enemy to health and happiness; as the mildew, that nips the bud of his tropical residence in its first opening; as the rust, that eats into his very soul, and corrodes it. And more than that, let him guard against ennui, the parent of hypochondriasis, the arch-enemy of Europeans in India, and the prime-minister of death; which torpifies the mental faculties, sets their elements into fermentation, and engenders discontent, melancholy, madness, assassination, and often suicide.

It would, no doubt, be a very desirable thing to be able to lay down a standard of perfect health with which he could compare his own case, as well as the cases of his patients, as he would their size and weight with the Venus de Medici, or the Apollo Belvidere, and be able to say such a patient was so many degrees above or below the just standard; but every man has a standard of his own, by which his health must be estimated, and which would be inapplicable to every other. One man may have a pulse ten beats a minute above the average, and another ten beats below the average, and yet both may be in the enjoyment of

perfect health. A state of constitution that is conducive to health in one man, would be the cause of certain disease in many another. One man may smoke his thirty cheroots a day, drink his dozen of beer, and yet for years live, laugh at the doctor, and get fat upon them; while another would be put hors-de-combat by a tenth part of that enormous allowance. One man may require some drain upon his constitution, to preserve him in health, that would be dangerous to the greater proportion of his acquaintances, probably enjoying as good health as himself. Hence arises one great obstacle to successful treatment on first assuming Medical Charge, and which can be overcome only by experience, and an intimate acquaintance with the disposition, the habits, and diathesis of his patients.

If sickness should supervene, the young assistant-surgeon should take the advice of his seniors. Few medical men are good patients, and they are still worse prescribers in their own cases. They are very liable to run into extremes, either to underdo or to overdo; and rarely have that composure of mind, that impartiality of judgment, that uncompromising system of treatment, which would guide them in similar cases, entrusted to their care. Should he, as will often happen, have no one to consult, then he must, if possible, divide himself,—the corporeal from the intellectual,—and

endeavour to weigh matters coolly and correctly; neither putting off necessary operations, that may be painful, nor procrastinating the taking of remedies that ought to be administered without delay.

I have often been at a loss to account for the neglect shewn by Medical Officers towards diseases of the mind; and the more so, as every well-educated practitioner knows how soon such involve the body. When reproach or disgrace, or pecuniary loss, or blasted ambition, or disappointed love, or death of kindred or consort, have harrowed the soul, and steeped the senses in melancholy or despair, no remedy is thought of; but the morbid mental diathesis is entrusted to time alone to effect the cure. Nor are any active steps taken till the mind borders upon insanity, and impels to the commission of suicide; or till the moral shock, recoiling upon the corporeal frame, gives rise to symptoms of acute disease, that hurry the unfortunate to the margin of the grave, from which nothing but a long residence in his native clime can rescue him. I am afraid many medical men would scruple to give a sick certificate for such mental affliction, and that Government would look gravely before they sanctioned leave of absence on such a pretext; nevertheless, such seem to me as fully entitled to indulgence, as the more palpable distempers of the body. I am not prepared to prove the frequency of insanity in India,

compared with that in Britain, but I am convinced that the climate and mode of life strongly predispose to that most dreadful of all disorders; and I would dissuade every one, with any hereditary tendency, from settling in the East.

XXXIII. SEASONS.

From the enormous extent of the Bengal Presidency, extending from the coast of Arracan to the Indus; and the varieties of climate peculiar to the different districts, no one description would be applicable to all, and as it would be impossible, in an essay such as this, to give even a slight sketch of each, I shall merely make a few remarks on that of the two great divisions, Bengal Proper, and the Upper Provinces; reserving a few remarks for those Stations remarkable for health, or the reverse.

In Bengal the seasons are divided into the hot, the rainy, and the cold.

The hot season of Calcutta may be considered to begin about the middle of March, increasing in intensity during April, May, and June. The thermometer, during these last three months, is seldom under 80° at any hour, and in the afternoon rises as high as 90° and 100° even in-doors, and to 120° in the sun. This heat is during the day very oppressive; but a fine sea-breeze generally sets in about eight o'clock in the evening, and blows cool and refreshing all night. At this season

there are occasional North-Westers, accompanied with rain and sometimes hail, which cool the atmosphere for a day or two, allay the dust, and are as welcome and as grateful as an oasis in the desert. Great care should be taken to avoid exposure to the direct rays of the sun, for few people venture out of doors between half an hour after sun-rise, and half an hour before sun-set. Should one have occasion to be exposed to the sun, he should always make use of a thick umbrella, and if he have a warm cloak or great-coat, he will act wisely in putting it on, even though he should run the risk of being laughed at by those who do not know the temperature of the blood, or the doctrines of caloric. The thermometer, though a correct register of heat, is by no means so of our feelings. One feels more exhausted in a calm day, with the thermometer at 80°, than in a breeze with it at 90°; and, on the other hand, he is more affected with cold in a windy day, with the thermometer at 32°, than in a calm day with it at 22°. The nature of the wind, also, modifies our feelings very materially, though the temperature remains the same. Of all winds the East wind is the most oppressive, when the thermometer stands high, as it is also the coldest when the thermometer is low. It is worthy of remark, how small is the range of the thermometer, between what is agreeable and what is oppressive; not more than 5° or 7° *Ceteris paribus*, all heat under

80° is agreeable, or at least endurable, but all above 85° more than is desirable. Prickly heat is very generally complained of at this season. It shews itself in the form of a rash, or papillary eruption, on all parts of the body most liable to perspiration. Its sensation is somewhat similar to what would be felt at all the hairs every now and then piercing the skin; though very annoying, it is consoling to think that it is one of the best signs of good health.

At this season of the year there is seldom a fleecy cloud upon the sky to screen the inhabitants from the intensity of the solar ray. A tide of flickering exhalations is streaming from the plain, parched, rent and gaping for the promised rain; the luxuriant leaves, and gigantic flowers upon the trees are collapsed and flaccid, and dangle against the branches, as if they had been lately lopped from the parent stem. Not a breath is in motion, and one becomes conscious of an increased frequency of breathing, to make up for the rarefaction of the air in prolonging the functions of the enervated frame. The native population are thinly scattered along the highways, and the few that move along, half suffocated with dust, have their hairless heads enveloped in many an ample fold. The humped herd ruminate in the shade, or recline amidst the slime of the half-dried pond, with nothing but the tips of their noses above the water; the jackdaw and the

raven shrink also from its blaze, and sit in the deepest shade, motionless and silent, with their bills distended to the utmost, in order to inhale the greatest possible quantity of vital air; while the sagacious vulture, and the adjutant, soar far aloft on motionless expanded wing, cooling their plumage in regions uninfluenced by the reflected rays. The European now shuts up his house to keep out the heat, as carefully as the Laplander shuts up his to keep out the cold; and, not contented with excluding the heat, he shuts out the light of day also, allowing no more to enter than suffices him to read the newspaper, and reclines upon his couch all day long, cooled by the swinging punkah. At sunset he throws open his doors, as a besieged garrison throw open their gates when an invading army has withdrawn, and luxuriates in the welcome breeze that whistles delightful music to his ear, as it whistles through his chamber. No wonder then that he awaits the setting in of the monsoon, as the captive awaits the tread of the deliverer that is to set him free; that he hails the first nimbous cloud upon the horizon, as the cast-away mariner does the coming sail; that the roll of the thunder is as welcome to his ear as the signal-gun of approaching assistance to the almost-despairing warrior; that the first drops of rain are as refreshing as a cup of cold water to a feverish patient, as auspicious as the first dew of perspiration on his burning forehead.

In the Upper Provinces, at this season, the hot winds continue to blow, and with all the ardour of the blast of a furnace; and, what adds to their annoyance, so laden with dust that it insinuates itself into every crevice, and encrusts every article of furniture, so that an hour after it is wiped away a fresh stratum is deposited, fit for engraving one's name. The doors warp, and the furniture twists and cracks, as if a fire had been put to them; and if iced-water be suddenly poured into a tumbler, it is as apt to crack and break as in Britain, when boiling-water is poured into it.

Nothing can exceed the sterile burnt-up appearance of nature, during the prevalence of the hot winds; the earth is stripped of all herbage, as if a flood of lava had flowed over it, drinking its rivers dry, and leaving it calcined and strewed with ashes. But these winds carry their own antidote along with them, and by means of the tatty the house is kept as cool as could be desired. As the wind generally lulls at night, the house becomes heated to a degree not to be endured; and the general plan of getting sleep, is to have the bed carried out of doors and placed on a terrace under the open sky, with no other covering than the light of the moon. No harm arises from this usage, as no dew falls at that season, which is considered the healthiest in the year; during the hot winds

which blow from the West, there are frequent alternations of an Easterly wind, which are very unwelcome, so laden with moisture, that the tatty is of no use and only fills the house with steam. There is a very general opinion, both among Natives and Europeans, that these East winds are unhealthy; they have a depressing effect upon the spirits, rheumatism is frequently caused by them, during their action the granulation of sores is impeded; meat becomes sooner tainted; and both man and beast become more languid and exhausted. A horse will perspire in half the time while at work, during an Easterly wind, than he would do during any other wind.

About the middle of June the South-West monsoon generally sets in, and often with great violence, accompanied with storms of thunder and lightning terrifically loud, not in intermittent peals, but in one continued roar. These thunderstorms are by no means void of danger, houses are not unfrequently struck by lightning, and sometimes set on fire, and even loss of life occasionally ensues. One afternoon, at Goalpara Assam, while watching the progress of one of these storms, a tremendous thunderclap occurred, as if the electric discharge had taken place at my feet, and I felt as if enveloped with lightning. A few minutes after, I learned that the house of a Native, about 150 yards from where I stood, had

been struck. On going thither, I found that the lightning had penetrated the thatch, descended along a post in the wall, and on reaching the floor had separated into two parts, diverging in opposite directions. The mud-walls were torn to pieces, every thing in the house was turned upside down, about a dozen yards of earth were ploughed up to a depth of three or four feet, large stones were splintered and the fragments tossed several yards apart. The hole in the thatch presented the same appearance as if an eighteen-pound shot had entered, but without any trace of combustion. The man was in the house (a mere hut of one apartment) when it was struck, and further than being bespattered with mud, and pretty well frightened, received no injury whatever.

Many years ago, while on the voyage to India, in H. C. Ship Farquaharson, I had another opportunity of seeing the effects of lightning at sea; during a stormy night, between the Cape of Good Hope and St. Paul's, the main-mast was struck twice, at an interval of about half-an-hour. The first time no accident happened, but the second time, part of the crew were hauling upon the chain-sheets, several of them were thrown down, and one man severely scorched; his clothes smelled as if they had been thrown on the fire. On the following day, his arms, neck, and breast were covered with small vessels, and resembled

much a case of erysipelas, which unfitted him for duty for several weeks. No material damage was done to the ship, the top-mast was found slightly splintered, but not seriously; the top-sail was scorched and blackened so as to cause it to be unbent; the main-mast was blackened in several places, as if a current of smoke had passed along it. The lightning had the appearance of a ball of fire in its descent, several of the crew had perceived it go down the main-hatch, and so convinced were they of its substantiality, that a careful search was made for the bolt, as they called it, but none could be found. So far as I remember, the ship had no conductors up at the time.

The clouds of dust that accompany the above North-westers eclipse the very sun, converting noon-day into twilight, trees are torn up by the roots, carriages are upset, and houses frequently unroofed; the first drops of rain hop upon the dust like globules of mercury; and hailstones, large as pigeons' eggs and larger, come tumbling down like grape-shot. Now the rain sets in in good earnest, and the arid soil drinks up the abundance, by its thousand fissures. Few people can contain their joy on this occasion, many rush out bare-headed into the shower, and saturate their clothes to the skin before they return. The thermometer, which, wont to stand about 90° and 95°, now falls ten degrees, and if the rains be

abundant, seldom rises above 80° at sunrise, and 85° at noon. Strangers are apt to imagine that, during this season, the rain pours down incessantly night and day; but so far is this from being the case, that it seldom rains for twelve hours in succession, and on an average seldom more than six or eight in the twenty-four. The forenoons are generally dry; the greatest quantity of rain falls in the afternoon or at night; and two or three days of continued rain, do not happen above four or five times in the season.

All the low lands are now flooded with water; and boats pursue their liquid course through the interior of the country, over corn-fields and orchards, with their keels ploughing up the soil, and their yard-arms brushing the fruit from the trees. The streams of population in the streets are now replaced by streams of muddy-water; the Native anchors his boat to his own roof-tree, and embarks his goods and chattels to keep them dry, or from being washed away; where the oxen lately trod out the corn, they swim across to higher pasture; the timid deer is driven from his haunts, and glad to claim man's protection in a cow-house; the elephant and her young swim with the wild-hog and her suckling; and even the sulky tiger, tamed of his ferocity, has, on such occasions, sneaked into a cottage, and, docile as a dog, laid himself down, an unwelcome guest, in a corner.

Contrary to what a stranger would expect, these inundations carry little devastation, and no care and despondency along with them; in proportion to the inconvenience suffered now, is the abundance of the ensuing season, according to the height to which the waters rise, so rise the hopes of the husbandman; for a copious sediment of rich alluvial earth is deposited on the lately-cropped soil, which requires only to be stirred and sprinkled with grain to return fruit,—some thirty, some sixty, and some an hundred, fold.

About the middle of October, the monsoon changes, generally with the same violence as when it set in, the wind settles in the North-East, and the weather becomes calm, cool, and clear. By the 1st November, the temperature is very congenial; during November, December, January, February, and the first-half of March, no climate in the world could surpass it, more especially in the Upper Provinces; the thermometer ranges from 60° to 75°. The invalid leaves his couch, the convalescent rapidly recruits his lost condition, the European feels new health and vigour diffused through his frame, enters upon a new lease of life, and feels a buoyancy of spirits and elasticity of gait that is very gratifying; he becomes in a great measure reconciled to the fiery ordeal from which he has escaped, and says to himself, 'twas worth enduring to obtain such heavenly weather.

Of course, this is the season for strangers to arrive in India, and I would strongly dissuade any one from entering the country before the middle of November, or after the middle of February. Almost all Europeans on returning to duty, contrive to arrive in November, December, or January, and thus secure time for getting to their destination in the interior, before the hot season sets in.

XXXIV. CLIMATE.

Much difference of opinion exists respecting the advantages peculiar to the climates of Bengal, and the Upper Provinces, which most likely arises from some idiosyncrasy rendering a sojourn in the one or the other prejudicial to health. One man enjoys better health in Bengal than in the Upper Provinces, and *vice versa*. If I had a choice, I should prefer living in Bengal in the hot season, and in Upper India in the cold. Bengal is less debilitating than the Upper Provinces in summer; but less invigorating in winter. Those who have resided long in Upper India, are strongly prepossessed in its favour; and, I believe, with good reason. The inhabitants are a race very superior to the Bengalis, being tall, stout, and manly; very handsome in figure, and in feature as different from the African, or the West-Indian, as these are from the

European. Every man goes armed with his spear, his matchlock, or his sword and shield, or loaded bludgeon, and looks down upon his Bengali compatriot with slight and contempt. Almost all the regiments are recruited from the Upper Provinces. The inferior animals are as superior to those of Bengal as the men; and their oxen alone are found fit for the Artillery. The risk of life is, no doubt, greater in India than in Britain, and three per cent. premium is generally demanded on the insurance of lives. The average rate of mortality amongst European Troops is five or six per cent.; and amongst Natives, one or two per cent. The mortality amongst Medical men is, in all climates, greater than of most others. From a statistical record, kept in Berlin, it has been ascertained, that out of 100 Medical men only 24 attain the age of 70; of so many Lawyers, 29; of so many divines, 42. The risk of life amongst new comers is, no doubt, higher than amongst those inured to the country; and that risk is greater amongst those arriving late in life, than amongst those at the age of maturity. Hence a reason why the stranger should be more cautious in his whole economy, than the acclimatized; for a morbid diathesis often lies lurking in the constitution, which requires only a spark to set it in commotion; such as a slight cold, a fall, a debauch, or a trifling surgical operation. The climate of India

is very unwholesome to children. Most parents that can afford it send them to Europe, before or about the age of six. The children of European soldiers and others, born and bred in the country, are weakly and unhealthy; and each successive generation becomes more debilitated even when the British blood has been kept pure.

It is somewhat curious, that strangers don't feel the heat so oppressive for the first year after their arrival, as they afterwards do, and as those do who have become seasoned—a proof of the constitution becoming enervated; as, also, the powers of resistance to the effects of heat; and, on the same principle, an invalid is more overcome by the heat, than a man in good health. On the other hand, it is generally believed that Indian residents, on returning to Britain, are not so sensitive to the cold as those are who have never left their native shore. This has been quaintly explained by supposing a quantity of latent heat absorbed during their broiling in India, acting as a sort of Promethean fire, which, until dissipated, protects them from the cold. Whatever may be the cause, I think I can speak from personal experience of the fact; and that, so far as I can remember my feelings ten years ago, I feel the cold less severely now than then.

It was my intention to point out the healthy and the unhealthy stations of Bengal; but that I

find no easy task to determine. Public health is oft-times influenced by other causes than those belonging to locality, and stations occasionally change their character from one extreme to the other; sometimes from the prevalence of an epidemic, sometimes from allowing the neighbourhood to be overgrown with jungle, or converted into a sort of marsh, by excess of irrigation. The most sickly stations are those of Arracan and Assam, Berhampore, Dinapore, Chunar, Etawah, Hansi; the most healthy, Calcutta, Midnapore, Hazareebaug, Ghazepore, Allahabad, Neemuch, Merut, Kurnaul, and Simla.

XXXV. EXERCISE.

If early rising were considered a proof of industry, certainly no people would be thought more industrious than Europeans in India. Few, indeed, are in bed so late as sunrise, and most are upon their legs at daylight, and ready for their ride or their drive, as the season admits. Let the assistant-surgeon then sally out of his quarters, and take a moderate walk, enough to tire but not fatigue. He will find few pedestrians, to keep him in countenance, than he expected, as walking is reckoned somewhat *infra dig.*; but since his income will not admit of his keeping a horse, let him not injure his health by giving way to a prejudice so absurd, as to think it a shame to make

use of the limbs that God has given him in the way intended. He will see many individuals, deeply impressed with the advantages of a morning walk, padding along most industriously, with their horses behind them, or their buggy at their heels; not that they have any intention of using either, but that they want magnanimity enough to encounter the vulgar gaze, shorn of their establishment; or dread to be taunted with niggardliness, for trudging through the dust, like a coolie, to save their horses' shoes or their buggy wheels. The evening is the grand season of exercise and recreation; every one that can afford to set a couple of wheels in motion, turns out to his constitutional drive. The course is crowded with hundreds of carriages, of great splendour and elegance; nor do they withdraw till the shades of evening close over them, rendering it difficult to recognise the face of their friends as they pass them by.

Riding is by far the most common mode of exercise; and many take their morning and evening ride as regularly as their meals. Many ladies indulge in this exercise. Dumb-bells, or other gymnastics, are good substitutes for riding. Shampooing is a very salutary practice; and friction, with a woollen glove, no less so. Few things conduce more readily to sleep than general friction all over the body; and, in bad health, I have seen

this succeed, in inducing sleep, when opiates had failed. If this can be done by the person himself, so much the better; but if an invalid, it must, of course, be done by the attendant. The flesh-brush and the hair-glove are to many too severe, and are apt to fret the skin. Sponging with cold water every morning is another good practice, in the absence of bathing. Too much attention cannot be paid to the state of the skin, for its functions are no less important than those of the intestines or the lungs. Many people, in good health, are apt to neglect these apparently-trifling things; nor do they think of attending to them till it be too late, and their health broken.

XXXVI. HOUSES.

The houses of Europeans in Bengal are of the Grecian style of architecture,—large, airy, elegant, commodious, and self-contained, with numerous office-houses detached, and enclosed within a mud-wall, the interior of which wall is called a *compound*. They are built of brick and mortar, and plastered outside as well as in; the roofs are flat, with a terrace upon the top, for walking on; the floors are either paved with marble, or made of a composition of lime and brick-dust, nearly as hard as stone, and covered with finely-woven mats, stretched smoothly; the windows are all glazed

with an external shutter of Venetians; the ceilings are flat, with every beam exposed to view. This last is done to be able to detect the ravages of the white ants, and to facilitate the means of replacing them when destroyed. I have often wondered why the roofs of Indian houses are not arched and alcoved in the Italian style, the original price of construction would not be much more; the expense of keeping them in order would be so trifling, as to save an immense sum in the annual renewal of timbers, and their duration would be much more lasting. There are no bells in the houses in India; but when any thing is wanted, the person cries out, *Quie hie,* and a servant appears. Neither are there any door-knockers, but a porter sleeps at the door; and, when awakened, receives messages. In the interior of the country the houses are generally made with thatched roofs, which are cooler than those with flat terraces.

Houses are generally built with the front to the North. In so far as the sun is concerned, this is no doubt the best; for as the sun, in the hot weather, passes from East to West in an arch, almost vertical, the northern and southern aspects are sheltered from the direct rays, and the ends only are exposed to the full strength of the morning and evening sun. But no small share of the comfort of a house depends upon its being freely

pervaded by the wind; and as the wind is for the most part either North-East or South-West, I am of opinion that the front should face the North-East. Every one who has lived in the Royal Barracks of Fort William in the hot weather, must be aware of the disadvantage they possess by their northern and southern exposure, and not admitting of a current of air through the quarters.

XXXVII. SUBTERRANEAN CHAMBERS.

Subterranean chambers have been tried in the hot weather, but not found to answer well, or at least they are not in use. They are reckoned unhealthy, and probably with good reason; for the air being first deprived of much of its oxygen in respiration, and loaded with carbonic acid gas, is much deteriorated. I cannot help thinking that much might still be done in making these chambers habitable; the chief obstacle to overcome is to ventilate them properly. If the principle now so successfully practised in ventilating the holds of ships were applied to them, viz., placing a winnowing-machine at the bottom, blowing the foul air up through a tube, and allowing it to be replaced by cool air, passing through the usual subterranean tunnel, I believe they might be rendered much less objectionable.

XXXVIII. EFFECTS OF CLOSED DOORS.

I am not an advocate for a custom too common of shutting up all the doors and windows in the house soon after sunrise, and not opening them till after sunset. In a very large house, where the inmates are few, and the consumption of air trifling, this might be attended with no inconvenience; but when the house is otherwise, where the family is large, the domestics numerous, with perhaps two or three dogs, requiring their breathing room, the air, during so long a continuance, must become much deteriorated. Inspiration, in a hot temperature, is more frequent than in a temperate; so also are the pulsations of the heart; hence more cubic feet of air pass through the lungs in the same time in the former condition than in the latter, and the room is sooner exhausted of its vital air. Besides, each inmate may be considered as a living laboratory of heat, and not of heat only, but of carbonic acid gas, which neutralizes the advantages gained by four or five degrees of coolness, which I believe to be nearly the difference between a house with open doors and one open to the winds. Hence arises a penalty which the *Burra admee*, as the man fond of state and attendants is called, pays for his dignity; and which the man fond of neither, the judge, and

magistrate, often unfortunately pays, while sitting all day in a crowded court, crammed with hardly-breathing litigants; to use their own strong expression, "eating the very air" he lives on.

The parallel between animal and vegetable life holds too generally true not to hold good in the circumstance of light. That darkness is deleterious to the healthy growth of vegetables, is well ascertained. Those plants that vegetate and live in darkness, remain pale, flaccid, and feeble; and those that have been accustomed to sun and air, if removed to a dark situation, rapidly lose their health, and droop or die. The bills of mortality clearly shew, that the inhabitants of dark lanes and alleys are more unhealthy than those in well-lighted streets; and moreover, nice investigations have proven, that the tenants of the shady sides of streets are less healthy than those on the sunny; and practical experiments have demonstrated, that tadpoles do not become mature frogs if kept in the dark. Plants form a very good metre for estimating the health of many localities; many of them, no doubt, thrive luxuriantly in places incompatible with human life; but still they are more sensible of minute changes of the atmosphere, and the intermixture of deleterious gases; and, as their tenor of life is more uniform than that of animals, the effects of impure air is more evident, and more easily computed. The

Indigo Planters are good examples of the truth of this opinion: they are the most healthy people in India, though exposed all day to the sun; and the hurtful effects of heat are counterbalanced by fresh air, light, and exercise. The contrast between these, at the end of a hot day, and those shut up in dark, close houses, is very remarkable.

XXXIX. SHRUBBERIES.

Much contrariety of opinion prevails respecting the cultivation of shrubs and trees round houses, some going so far as to shroud the house in foliage, and others condemning every living plant to transportation or death. The former cultivate trees for the sake of their beauty, their cooling shade, and a still further cooling property they possess by evaporation; the latter forbid their growth, from believing them to generate or harbour malaria, and obstruct ventilation; besides consuming the oxygen of the atmosphere (though some doubt this), and exhaling, especially during the night, a large quantity of carbonic acid gas. Moreover, trees afford shelter to insects; and no house is more infested by mosquitoes than those most ornamented with vegetation. On the whole, I should prefer living in a house without trees to one surrounded with many; at the same time I should like two or three, if judiciously placed. A

few shady trees in front of the house, is a great comfort to the whole establishment, and a favourite place of resort for both master and servant.

XL. DOMESTIC PLAGUES.

Much has been written about the annoyance from insects; and some would even have it believed, that all the plagues of Egypt were let loose upon the Residents, and that their lives were a constant struggle against red ants and white ants, sand-flies, mosquitoes, cockroaches, centipedes, scorpions, lizards, and snakes. The red ant abounds in every house; but he is too honest and independent to draw upon the most tender morsel of humanity, unless pressed by famine, and then he is to be excused. Mosquitoes are certainly exceedingly annoying, especially in the hot weather; but one has always the *dernier resort* of the mosquito cage to get into. Scorpions and centipedes seldom take up their quarters, unless in very old and very filthy houses, and may thus be avoided.

Of all the domestic plagues, the white ants are the most troublesome; and as they do all their mischief in the dark, or under cover, either by mining below ground, or by tunnelling their paths with clay when above, much watching is sometimes necessary to prevent their attacks. I once

had an entire trunk eaten up by white ants. Nothing was perceptible from the outside; but on touching it, to open it, I discovered that it was reduced to a mere shell; it broke in pieces in my hands. As the white ant is very averse to coming above ground, it is generally found sufficient to place a small plate of metal under the feet of articles standing on the ground to protect them.

I have never seen a living snake in my Bungalow, and only on one occasion found a mark of one having been there. On this occasion, I found that a pretty large one had come in during the night, availed himself of the bars of the grate to strip off his skin, and left it behind him. I expected he had taken up his quarters in the chimney, and put a fire on to dislodge him, but found he had walked off. I have occasionally had my hen-roost robbed by a large species of snake allied to the boa, and now and then have seen others on my ride, but found them as eager to fly from me as I was from them. I have only had one case of snake-bite in practice, and that was a trivial one.

XLI. PUNKAHS.

No house, or rather no room, is thought furnished without a punkah, viz., a frame of wood, about three feet broad, and nearly the length of

the room, covered with cotton-cloth and white-washed, and hung by ropes from the ceiling, and so low as just to admit of a tall man walking under it. To the middle of the punkah a rope is attached, by which it is pulled backwards and forwards, thus acting as a fan, and producing strong gusts of air. Besides the swinging punkah, there are punkahs made out of a leaf of the palmyra palm, which are used by the two hands. To live without the punkah, in the warm weather, would be a severe penance; for it is one of the greatest luxuries, nay one of the greatest necessaries, in India. Some have it pulled night and day, have the servants relieved, like sentries on their post, and could not sleep without it; and, to guard against the puller going to sleep, ingeniously contrive to seat him upon a lofty stool, the dread of falling from which acts as an effectual antidote.

XLII. TATTIES.

During the season of the hot winds in the Upper Provinces, tatties are used. A tatty is a frame-work of bamboos, thatched with the roots of a sort of plant called Kus-Kus. It is fitted into a door on the weather-side of the house, and kept constantly wet by water thrown upon it from the outside; another door is opened on the lea-side of the

house, and the tatty, being quite pervious to the wind, a strong current of cold air is produced, which keeps the house as cool as is desired. The following is the result of an experiment made by me in Oude, at noon, in the month of May, during a strong west wind. The thermometer placed on the ground, in the sun, stood at 120°; in the shade, in the verandah, 104°; in centre of house, 83°; and in an earthen jar, behind tatty, 68°. Nothing can exceed the delightful coolness of this most refreshing breeze; and did the wind continue steady all night, the season of the hot winds would be little complained of. Tatties are not used in Bengal Proper, as there are no hot winds to make them useful.

Some discretion and self-denial is necessary in the use of the tatty. New-comers are apt to sit too near them, and subject themselves to colds or cramps, or something worse.

XLIII. FIRES AND LIGHTS.

Wood and charcoal are the principal fuels used in cooking. Coal is easily procured, not far from Calcutta, in any quantity, and of very good quality; but it is not much in use. Few houses have fire-places. Fires ought to be more frequent in dwelling-houses; though the cold may not be so great as to demand them, yet they are useful in

ventilation. Even in the very hottest weather, during the rains, a fire would be very beneficial: most articles of furniture, and clothing of all kinds, are then saturated with damp, and covered with mildew, and a good fire is the best thing to counteract these.

Cocoa-nut oil is chiefly used for light. In the cold weather it is solid, and requires to be melted before using; but, in the hot weather, it is liquid and transparent. It is burned either in Argyle lamps, or in plain glasses, with a wick floating on its surface. The common Argand lamps do not answer, as the punkah puts them out. Wax and sperm candles are often used. Gas has not yet found a patron in Bengal; the streets are almost in primitive darkness, and every conveyance carries its own light.

XLIV. CLOTHING.

In the cold weather warm clothing, as in England, is worn; but, in the hot, nothing but white cotton all over, calico-shirts, jean-jackets, waistcoats, and pantaloons, white as driven snow. Linen is very seldom worn, it is not found to answer; it is too easily affected by change of temperature; and, after perspiration, becomes like so much lead. Most people wear flannel under their clothes, and a very proper practice it is, and an

excellent protection against sudden alterations of weather. When flannel irritates the skin, silk is an excellent substitute; and of this I speak from having used it. A couple of silk handkerchiefs sewed together, leaving space for the head and the arms to go through, form a most convenient and a most comfortable under-dress. Silk pyjamas, a sort of wide pantaloon, tied round the waist, is a common in-door dress; and this is also worn while in bed; and, in the hot season, is the only covering.

In making up clothes for Indian wear, it is of the utmost importance that every raw-edge of the cloth be hemmed, or secured by extra sewing; for, if sewed as if for home wear, the seams will be torn open in one or two washings.

I have had the curiosity to weigh a complete suit of clothes, worn by me in the hot weather in India, and find that the jacket, vest, and pantaloons weigh only sixteen ounces; on trying the dress worn by me during the late winter in Edinburgh, I found it to weigh in toto about fifteen pounds.

Cotton quilts, lined with silk, are the usual bed-covering; the silk, besides being a pleasant wear, is also a non-conductor of electricity; and I have heard of people being, by its use, saved from the shock, when all around them was struck by lightning. Mattrasses are rare things in India,

and feather-beds still rarer; the general substitute being a lace-work of stout tape stretched on the bed-frame, with a quilt over it. Every bed has its mosquito-curtain, composed of thin gauze, which is useful in keeping off insects, in moderating the current of wind when sleeping with open doors, affording shelter against damps and fogs, and even miasmata, when in the air. In fevers, I have seen much relief given by lying in bed, *corpore nudo*.

At formal dinner-parties, one is expected to make his debut in his coatee; but he is generally asked to doff it, and is prepared for such emancipation, by having brought a white jacket in his palanquin. This etiquette is carried to a still greater extreme on public occasions. There every one is forced to appear in cloth-uniform, loaded with lace and bullion, and buttoned up to the chin, with sword and sash besides; or, as it is called, in melting-point dress; which, besides rendering the wearer oppressively hot, and miserably uncomfortable, brings on many a serious illness. Government have so far consulted the feelings of their troops, as to permit white cotton pantaloons to be worn upon parade during the hot weather; but why they have stopped short at the extremities, without extending the same indulgence to the centre of heat, the trunk, I am at a loss to imagine. Doubtless, some degree of personal

comfort must be sacrificed to the maintenance of military appearances; but surely a white jean cover to the forage-cap, and a coatee of the same material, might, with the taste of a Stultz or a Gibson, be made to assume as martial an air as the most rigid stickler for dress could desire. I need not refer to science for evidence to prove how much cooler such a dress would be than that now in use, for that is universally allowed; nor yet to the mortality in the field, during hot weather, in a great measure to be attributed to the fatigue and exhaustion occasioned by the same. I have only to appeal to the feelings of every one who has spent one hot season in the country, and to ask him what is the first thing he does on entering his quarters after attending a levee in the hot weather? Why, of course, to strip to the buff, have his iron-bound dress, soaked with perspiration, hung out to dry, and thank his stars that he is still alive. For the same reason that I would recommend a white cover for the caps, I would a white cover, quilted with cotton, for palanquins, buggies, and carriages. It is not necessary that the temperature be above blood-heat, in order to gain advantage from such a protector; for, though the thermometer may not rise above 96 degrees in the air, yet, from the absorbent nature of the black hood, its temperature will be considerably higher. It is curious that

the precautions requisite to be taken against extreme heat and extreme cold are very nearly the same; and that we should prevent our ice from thawing, and our toes from freezing, by wrapping both in woollen or cotton.

XLV. BATHING.

Next to a glass of cold water, a cold bath is the most grateful luxury, and most people indulge in one after their morning exercise. Some use the cistern-bath, and others the shower-bath. A very common modification of the shower-bath is to pour five or six jars of water over the head while standing in the erect position. If these jars be kept outside the house all night, and brought in at sunrise, the water will be as cool as is desired. Not a few use the tepid-bath. Few bathe oftener than once a day, and many continue bathing even in the coldest weather. This is one of the most healthful pieces of discipline practised in India; and no small part of its advantages is the brisk friction of the skin in drying.

The cold-bath is the best seasoning against the effects of sudden changes of temperature of the weather, and the tepid-bath against derangement of the functions of the skin, or internal chronic affections.

XLVI. DIET.

As most people get up very early, it is customary to take a cup of coffee or milk, or a couple of plantains or a biscuit, before going out. This I believe to be a good system; it has part of the effects of a dram, without its bad consequences; and prevents that squeamishness, that sinking of the heart, as it is called, which is apt to ensue if nothing be eaten before breakfast. The general hour of breakfast is between nine and ten. Bread and butter, and tea or coffee, satisfy some; others have rice and fish, with eggs and butter; and others, cold meat or curries. As a curry is a standing dish on every table, it may be well to have an idea of its constituents. A curry is a most heterogeneous compound of ginger, nutmeg, cinnamon, cloves, cardamoms, coriander, Cayenne pepper, onions, garlic, and turmeric, ground to a powder by a pestle and mortar, made into a paste by ghee, or clarified butter, and added to a stewed kid or fowl, &c. Tiffin is served about two, and often consists merely of a glass of wine and a biscuit. Dinner is served at dusk, and consists of nearly the same materials as are seen upon an English table. The milk is either cows, or goats, or buffaloes. Butter is made every day; in the cold weather it is good; in the hot, white, curdy,

and insipid. Bread is in general excellent; beef and mutton good, if care be taken in fattening; but pork, from the prejudice of the Natives to touch it, is seldom eaten. English preserved-meats are not uncommon; and Stilton or Dunlop cheese always has its appropriate corner.

Game may be procured in most parts in great variety: wild hog, venison, water-fowl, quails, pheasants, partridges, peacocks, &c. Some keep a game-killer on purpose, and have a plentiful supply at a moderate rate; in fact, there is no want of good fare; and the stranger must be careful to be abstemious till he becomes seasoned.

Almost all the cookery-utensils are made of copper, tinned over. It is customary to have the tinning renewed once a month; but, from the Native practice of scouring the vessels with sand in cleaning them, the tin is often worn off before the month is over; and the food cooked is liable to be tainted by copper, to a hurtful extent. Not only acid preparations act rapidly on copper, if allowed to remain any time in the utensil, but oily ones also, and none more so than oleaginous curries. Every pot ought to be cleaned, and dried immediately after being used; and those who consult their health, will do wisely in making occasional visits to their cook-room.

XLVII. FRUITS AND VEGETABLES.

As I have already mentioned, many people have a strong prejudice against fruits. I would so far coincide in this opinion as to advise every newcomer to be sparing in their use, and discriminating in his choice. I think he might safely venture to eat, in moderation, grapes, peaches, leechees, custard-apples, pine-apples, oranges, pummaloes, pappias, and plaintains, and now and then drain a green cocoa-nut. Mangoes, though the best fruit in India, he must treat with great circumspection; and guavas, water-melons, and cucumbers, he must not taste. A salad of green cucumbers is enough to surfeit a donkey. Most of the English vegetables grow well, and are in season in the cold weather. The Residents owe much to the Agricultural Society for the superior cultivation of vegetables now in use. Many wild vegetables are used as spinnage.

XLVIII. DRINKS.

The beverage most in use is Hodgson's, Bass's, or Alsop's pale ale; and, no doubt, it is the best. A bottle at dinner is reckoned a moderate allowance; or, instead of it, two or three glasses of claret or sherry. Though I would recommend as

sparing a use of liquors to the stranger as animal food and highly-spiced dishes, yet I am not an advocate for meagre fare and water-drinking. I believe much harm has been done by indiscriminate abstinence, and consider the one extreme nearly as hurtful as the other,—the one as the Scylla, and the other as the Charybdis. The water-drinker, in avoiding the diseases of the intemperate, contracts an opposite train, no less intractable, and no less fatal in the end; the asthenic and chronic, instead of the plethoric and the acute. Some stimulus is absolutely necessary during the hot weather, when the heart labours, and the system is exhausted. In the cold weather, the want of such stimulus is little felt. Brandy and water is a wholesome drink, when kept in moderation; but it is apt to grow on one from use. Fortunately, drunkenness is now a rare vice in India; and, when indulged in, is, for the most part, a solitary one. It is almost entirely exploded amongst officers. During seven years' residence in India, I believe I may safely say I have not seen seven officers the worse of liquor. Nothing is more injurious to an officer's character than intoxication; nothing more quickly estranges his companions; and no misdemeanour is more severely punished. Soda-water is freely used, by old Residents especially, and I suspect carried to a hurtful excess. It is often taken under a mis-

taken idea of its possessing alkaline properties, and consequently neutralizing acids on the stomach; whereas it in general contains no alkali, nor any thing more active than carbonic acid gas. Its properties, as a simple diluent, are lost by the profuse perspiration that follows its use; and its advantages counterbalanced by the stomach and bowels becoming surcharged with flatus, unless it makes its escape by eructation.

Liquids of all kinds have a tendency to increase perspiration; the urgent thirst is only temporarily allayed; for, as fast as they are drunk, so fast a nearly equal quantity of fluid exudes. Hence a reason why a mouthful of cold water now and then will moderate thirst almost as effectually as an equal number of tumblers.

Liquors of almost all kinds (used by Europeans) are imported from England, at least there are none manufactured in India. Some attempts have been made to brew ale on the Himalayah Mountains; but the beverage has not been patronised, from what reason I am unable to say. I should think there were no physical hindrances, and no want of the means of providing all the materials for brewing good Ale.

Though the grape grows luxuriously in most parts, it has not been made into wine. This may be owing to the excess in its fertility; and possibly a superior grape might be cultivated on some

barren Konkar soils, so common in Upper India, and allowed to lie waste. Arrack, distilled from the juice of certain palms, is not much used by Europeans. Water is obtained either from rivers, tanks, wells, or from rain. The water of the Ganges is very excellent; and, though very muddy on first lifting it, soon deposits an abundant sediment, and remains pure. It is further rendered perfectly transparent by the addition of a small quantity of alum. The water of most tanks is filled with animalculæ, and not fit for use till it is boiled, or otherwise purified. Well-water is often bad, especially in the lower provinces. The best water, in all situations, is rain-water. Those who are particular in this department, collect all the water that falls from the houses during the rainy season, and store it up in large earthen jars, for the year's consumption.

XLIX. ICE.

In the hot weather every dinner is closed with ices, and the greatest luxury it can afford is a glass of iced-water. Every large station has its ice-pits for the manufacture, and its ice-house for storing up ice for the hot weather. Though the temperature of almost no station in Bengal is so low at any season as to cause water to freeze in the natural way, yet an artifical process suffices to

produce congelation. If a porous, earthen, shallow vessel be filled with water, and exposed to the atmosphere, upon straw, during a clear night in the cold season, a pellicle of ice will be formed upon it in the morning. On this principle, thousands of earthen plates full of water are exposed to evaporation every evening during the months of November, December, January, and February; and every morning the ice is collected, and stored up for use. This manufacture succeeds as low down as Hoogly. Many ship-loads of ice are imported every year from America; and, what is curious, this ice can be used as cheap, or perhaps cheaper, than the Native ice.

Saltpetre and glauber-salts are extensively used for cooling liquids. These salts are abundantly developed from the soil in some districts, especially in Behar and Oude, and are consequently obtained at a cheap rate.

When water is once cooled, the grand object is to keep it cool; and the best thing for that purpose is to put it into a bottle, and enclose it in a sack of quilted-cotton, or silk, or wool, or in cases of a porous vegetable called solar.

L. SMOKING.

The next domestic habit I shall mention is smoking, than which no vice, after drunkenness,

is more hurtful to the individual, or more offensive to his neighbour. His breath not only smells of an old pipe, but every thing that enters his house, as a book or a newspaper, comes out of it stinking with tobacco; so that their perusal by any one not seasoned to such fumes, is sickening, and to ladies disgusting. The very difficulty of learning to smoke, the head-ache, and nausea, and vertigo, with which that is accompanied, are enough to shew that it is poisonous; only made endurable by long habit, and persevered in from want of some more congenial occupation. Habitual smoking too often leads to habitual drinking; the drain upon the system must be replenished; and brandy and water is the usual succedaneum. Some pretend to gainsay this, and maintain that they do not spit; but this only shews the torpor of the salivary glands: for, if they were in a healthy state, spitting would be as copious as when they were learning the habit. Some smoke on medicinal motives, and with the object of producing a laxative effect; but these same persons would grumble most obstreporously at being obliged to take a pill every evening to cause the same effect. Fortunately, cigar-smoking in India, as in England, is going much out of use. Fashion, more powerful than argument, has put many a one's pipe out. One rarely meets with a smoking-faced dandy now-a-days; and the chief incense offered

to the shade of its introducer, smokes from the inch-and-half cutty.

Hookah-smoking, though to appearance less hurtful than cigar-smoking, is in reality more so. In it the smoke of the tobacco is inhaled into the very lungs, and generally a large portion of carbonic acid gas along with it, thus occupying the place of so much atmospheric air, which ought to have contributed to the purification of the blood. Hookah-smoking is also gone into disuse. One seldom sees more than three or four hookah-smokers at a large party, and these are regular veterans, who have grown old in their devotion.

LI. AMUSEMENTS.

Riding is the principal amusement; every one has a horse or two, and the morning and evening ride forms part of every day's recreation.

Shooting engages the leisure hours of many, but it is a dangerous taste, as many every season lose their lives, by contracting fevers, or other diseases in its pursuit. Of all modes of sporting, Snipe-shooting is the most dangerous. These birds are only to be found in marshy miry bogs, the very hot-beds of fever, and can only be shot by plunging to the knees in mud. Many sacrifice their health, some their lives, every season, in pursuit of this worthless game.

Boating is a good deal followed, but many accidents attend it, and many are drowned in consequence.

Cricket, Quoits, Billiards, are much played, as also are Backgammon, Cards, and Chess. This last is well suited to a hot climate, and is a favourite way of spending a leisure hour. I am sorry to say Gambling, under many different forms, is much practiced, and large sums of money are often staked upon very trifling matters.

When idleness and inactivity exert such influence upon the community, and apathy and ennui obstruct the current of sociality, and propagate the seeds of so many diseases, bodily as well as intellectual; any rational plan that could be invented to give a fillip to the flagging pulse of passing events, that would tend to break the monotony of time and set the moral elements into circulation, ought to be hailed as a public good. Of all the recreations which add to the enjoyment of the community in our own country, and more especially in London, none rank higher than those popular schools of Art, the Polytechnic Institution, and the Adelaide Gallery. It is truly delightful to see how smooth the rugged road of Science has there been made,—how imperceptible the ascent,—how happily amusement is blended with instruction, that people of all ages and all tastes may gratify their predominate passion, while they

are unconsciously learning something useful. If there be a royal road to knowledge, one would expect to find it there, for by the aid of models and mechanics, and lectures to boot, as much may be learned in an hour, as in an year elsewhere; and those of the most ordinary capacity are enabled to keep pace with the railroad speed of the march of intellect.

It is much to be regretted that such an Institution does not exist in Calcutta, for it might be made a source of much good. A taste for such things has of late been introduced by the Earl of Auckland, and the eagerness with which the scientific soirées, given by his Lordship, at Government-House, have been attended, shews that such would be likely to succeed.

LII. MODE OF TRAVELLING.

Before the Assistant-Surgeon has been two months in Calcutta, he will be anxious to get away, and most probably will be ordered to some of the large stations of the Upper Provinces, as Benares, Cawnpore, Merut, or Kurnaul, to do duty with a European corps. This is, perhaps, the best thing that could happen to him, his pay will be increased to 256 rupees a month, and he will be granted boat-allowance to take him thither. He will do well to take his passage in the Steamers,

which run monthly as high as Allahabad; for the navigation of the Ganges in Native Boats is full of danger, and will occupy four times as long as the Steamers. But it may happen that he cannot avail himself of a Steamer, and the following hints will be useful for his guidance.

There are no mail-coaches in India, and every one when travelling finds his own conveyance, a riding-horse, a camel, or an elephant; a palanquin, a buggy, or a carriage,; a boat, a budjerow, or a pinnace. The quickest mode of travelling, is by what is called *dawk*, that is to say, the traveller gets into a palanquin, and government supply him with relays of bearers, at the rate of half a rupee a mile. He is allowed two men to carry baggage, and moves along night and day at the rate of four miles an hour. When he tires of the recumbent position, he jumps out, and runs, till he is weary and glad to get in again; when hungry, he boils his coffee, by help of a spirit-lamp, in his palanquin; and can go to sleep when he feels inclined, the swinging of the palanquin acting soporifically, as a cradle.

LIII. NAVIGATION OF THE GANGES.

To one not acquainted with the navigation of large rivers, a voyage up the Ganges may possibly be considered a mere pleasure-trip; but much ex-

perience, and many voyages made, both on the Ganges and the Brahmapootra, convince me that their navigation is full of risk, both to person and property; indeed, more so than a voyage to sea, occupying the same time. The rate of Insurance, during a four months' voyage on the Ganges, is about the same as that from Calcutta to London. Indeed, the management of a boat during such a voyage, and with no better appliances than those now in use, is more difficult than that of a ship to England; I mean its success is more precarious. One might, *à priori*, imagine that nothing more was necessary than to continue to ascend and descend the stream, and he cannot go wrong; but the whole country is, for three months of the year, covered in a great measure with water, and more like an inland-sea than a river, without current or permanent land-mark; where old channels are filled up every year, and new ones are formed; where the banks, that resist the sapping of the river, appear under so many different aspects, according to the rise and fall of the inundation; where, at one time, a large thriving village is erected, and a month thereafter not a wreck of it remains; where, at another season, an extensive tract of land is found covered with slime and alluvial deposit, and a month thereafter the villagers, having returned to their old foundation, in a few days have reconstructed their city of fresh reeds

and rushes, as before. Even in the dry season, the river is divided into so many channels and islands that it resembles a net, and renders it difficult to determine which channel to take. Then the voyager meets with rapids, where all the strength of his crew united is insufficient to drag the boat up the stream; and often, in this same rapid, the tracking-rope breaks, when there are only two or three persons on board; the boat descends the stream, like an arrow,—drifts, perhaps many miles, at the mercy of the current; or, it may happen, strikes against a bank, and upsets; or, if she stick fast, a mass, large as an elephant, tumbles from the lofty banks and swamps her. Then there are storms, and lea-shores, and dashing waves, equally formidable to the crazy craft and the primitive crew as to a fine ship, well-manned at sea; and, what is worse, the boatmen, on any emergency, become panic-struck and despondent, and desert the boat and the voyager at his utmost need, leaving him to his fate. But, more than all, the inhabitants on shore will render him no assistance; and, in the event of his boat's going to the bottom, they will not allow him to enter their huts,—no, not even their cow-houses; and he may think himself lucky in being permitted to take up his quarters in some uninhabited ruin. The Natives of India, with all their gentleness, and docility, and inoffensiveness, are

probably the most inhospitable race on the face of the globe, to all but those of their own caste: he will run little risk of being injured in person, or robbed of his property, but he must calculate upon no fellow-feeling for his destitute condition.

The best sort of boat for the river is a small beauleah, or budjerow, with eight, ten, or twelve oars. A large one is apt to be unwieldy, and too heavy for the crew that are allowed for it. Up-country men are always preferred to Bengalese, and Hindoos to Mussulmen. Before engaging a boat, examine if she is sound, and well found in cables, sails, ropes, and a good iron anchor. Boats are engaged by the month, or by the trip; the latter is the best way; a written agreement should be made, and not more than one-third of the fare paid in advance, and the rest by instalments, at different parts of the voyage. Those not experienced in boating, ought to allow the boatmen to have all their own way; for though the stranger may be convinced of their doing many things wrong, and be able to prove it by mathematical demonstration, yet he will be a loser by attempting to introduce improvements. The most important thing to be attended to is the place of spending the night. Most boats are lost while at anchor at night. They should always, if possible, be made fast in a creek, or land-locked bay, where

shelter may be got in the event of a storm; for, a boat made fast to a lea-shore, with a great extent of water to windward, especially if the wind be against the current, is sure to be swamped. The means in use for ascending the river are sailing and tracking. When the wind is fair, and strong enough, sail is set, and thirty or forty miles are sometimes made good in one day; when there is no wind, the crew walk along the shore, and drag the boat onward with a long rope. In this last way, ten and twelve miles are the average rate per day. In descending, the oar is the usual resource.

LIV. DIVISION—STATION.

Before embarking for the Upper Provinces, two months' pay, and the allowance for a boat is paid in advance. The Assistant-Surgeon ought to report his progress, in person, to each Superintending Surgeon that he passes on his voyage. On arriving at the station to which he has been ordered, he must wait officially on the Superintending Surgeon, the Brigadier commanding the station, and the General, commanding the division. He will most likely be ordered to do duty in the hospital of a European corps. The Medical Staff generally attached to each European regiment is, a

Surgeon, and two Assistants, besides one, two, or three young Assistant-Surgeons, *pro tempore*.

At such Division Stations, there may be three, four, six, or more regiments cantoned, partly European, partly Native; each regiment having its own Medical establishment. The mode of life is somewhat similar to that in Calcutta, though on a much more limited scale. They have their Races, their Hunts, their Balls, Concerts, and Plays. The characters in the latter, are principally sustained by Amateurs, Officers in the Service. There is less sociality than might be expected in a small society; and it often happens, that the one-half of the residents are strangers to the other.

During his stay at Head-Quarters, he will have an opportunity of seeing the mode of life amongst European Troops, in a Tropical clime. He will not be long connected with them, till he learn that the majority of cases are the consequence of Intoxication; and the most dangerous form, Delirium Tremens. But he will further find that Intoxication is only a secondary complaint; and that the *origo mali* is Ennui. If officers, with all the liberty and comfort consistent with the climate, so often fall victims to this malady, how infinitely more liable are the poor soldiers, whose life during half the year, is little better than solitary confinement—whose existence is monotonous to an excessive degree, wthout variety or excitement—

men, for the most part, of no mental resources; and, even in the event of their having a taste for such recreations, without the means of gratifying it. Is it surprising, that men so situated, become listless, gloomy, melancholy, disgusted with existence, and commit suicide; or that they drown their senses in intoxication, and die the death of a madman; or that they cultivate the seeds of disease, in hopes of so far impairing their constitutions as to get invalided; or that they commit some act of felony, with the express object of being emancipated, and ending their days in transportation?

There, no doubt, are many difficulties in the way of mitigating their condition. Many of them have learned intemperate habits before joining the army; and, needing more stimulus now than ever, become confirmed drunkards; many would abuse any relaxation of discipline, and riot in excess. Still, more might be done than is now done. Temperance Societies have been tried, and done much good, as was lately strikingly evinced in the Cameronians in Fort William. The exclusion of ardent spirits from the canteen, and the substitution of whosesome beer, was lately tried as an experiment by the Governor-General, the Earl of Auckland, and answered well, and ought to be made universal.

But the grandest field for improvement of the

condition of the soldier remains yet untilled; and that is, the keeping the mind active, and on the alert. An effective Medical establishment is, no doubt, a good thing; but a prophylactic mental establishment would be still a better. Exercise is certainly a valuable prophylactic; but exercise, combined with what is agreeable and exciting, is doubly more so. A system of recreation should be organized, and persevered in, as regularly as their regimental-drill. Some may say that amusement, when compulsory, is no longer amusement; but there is a wide difference between being compelled to amuse one's-self, and having no amusement at all. Every European regiment should have its gymnastic establishment under cover, and protected from the weather, where the men might play rackets, bowls, or billiards, concerts, comedies, &c. &c. If the racket-courts, in almost every cantonment, were covered with roofs, they might be made much more useful than they are at present. To effect all the good desirable, Government would require to make a considerable advance of capital; but the valuable lives that it would be the means of saving, would make them gainers eventually, and be doing a great act of humanity.

The time usually spent by Assistant-Surgeons, on first arriving at division head-quarters, is very uncertain; they may be many months there, or

perhaps not many days; they are considered available for any duty that the exigencies of the service may demand. As it is probable they may, soon after this, get the Medical Charge of a Regiment, I shall endeavour to give a prospectus of their duties at an out-station, as those stations are called where there is only one battalion.

LV. ECONOMY OF A NATIVE REGIMENT.

A Native regiment consists of 1,000 men, partly Hindoos and partly Mussulmen. The European officers are, one colonel, one lieutenant-colonel, one major, five captains, six lieutenants, six ensigns, one surgeon, or assistant-surgeon. Such is merely the nominal strength of European officers. There are seldom more present with the regiment than one colonel or major, three captains, four lieutenants, four ensigns, and one surgeon or assistant. The rest are either absent on furlough, or on staff employment.

In the interior especially, at small stations, there are no barracks; but each officer has his own house, with compound. Some rent them, others buy them. The latter is, perhaps, the cheapest in most cases, as the holder may generally get his own money in return.

There is one part of the establishment of a house that most new-comers find very irksome, and that

is, being obliged to entertain one or two watchmen to prevent being robbed. These are called chokeydars; and, in most cases, members of a band that, more or less, make their livelihood by plunder. Their wages are a sort of black mail imposed upon the settlers; and, provided it be regularly paid, there is, indeed, very little chance of being spoiled. When such is the custom of the district, I would advise no new-comer to take up house without them. The Natives of India, when inclined, are the most expert thieves in the world. To remove the contents of the bed-room in which the master is sleeping, is considered an easy matter; to steal the sword from his side, or the pistol from under his pillow, requires but the dexterity of a journeyman; and an accomplished artist will sometimes succeed in walking off with his very bed-clothes, leaving him to be apprized of his loss by the coolness of the night-wind.

In most regiments there is a well-regulated mess, at which all the unmarried officers dine. Every one brings his own plate, and crockery, and wines, and the essentials are furnished by the mess. A great reform has, of late years, been effected in the convivial habits of messes; and, as I have elsewhere stated, it is a very rare thing to see an officer the worse of liquor. Their domestic habits have also greatly improved; and debauchery under any shape is seldom seen. Most officers

buy or rent a house of their own, and maintain their own complete establishment. It must be confessed, that this is generally as large as their means admit of, and often larger, so that many are involved in debt.

The uniform of Native troops is almost the same as that of her Majesty's, the chief distinction being in the button. The uniform of an Assistant-Surgeon is the same as that of a Lieutenant of the regiment, with this difference, that he wears a cocked-hat on parade, and no sash. Medical officers were formerly put to much extra expense in changing their uniform when they changed their regiments. It would be very desirable to have one standing uniform for all regiments, as, I believe, is customary in the Madras Presidency. There are seldom more than four or five officers in a regiment married.

LVI. RESPONSIBILITY OF SURGEONS.

To a right-thinking man, few positions in life are more serious or more responsible than that of a Surgeon in charge of an out-station, with the lives of two or three thousand individuals intrusted to his care; when every day and every hour he may be called on to cases of imminent danger, without time for deliberation; with no other medical aid to advise him, or share in the respon-

sibility, nearer than sixty or eighty miles. Nevertheless, the doctor under ordinary circumstances, when a couple of hours a-day suffice for the performance of his duty, is sometimes looked upon as an idler; as one that does but little for his allowances. His pursuits, private as well as professional, meet with but little sympathy; nay, in some degree, isolate him from the rest of the officers, and though linked in the same regimental chain, he often forms an extreme link, as a hook or an eye. But when some scourging epidemic crosses the frontier—takes up a position in cantonments—panic strikes the little community; thins the ranks of the soldiers, crowds the hospital with sick, and threatens to sweep away the young and the old, the Native and the European, rapidly and indiscriminately to an unexpected grave; then the doctor is looked up to as the guardian of the public health,—as the protector, to whose skill one and all may be soon indebted for the preservation of their lives. Then is the time when all his professional science is called into action, when all his physical energy, and his moral courage, find full scope for employment; then is the time to have his merits duly appreciated, to gather in a harvest of good opinions, that may redound to his advantage at some future day.

Should he himself be attacked with the malady, fortunate will it be for him if he can restrain his

reasoning powers unbiassed and unimpaired, and be able to conduct his case to a successful issue; if it should be his fate to fall a victim, he will have the satisfaction of dying in the cause of humanity, in the protection of his friends, and the service of his country. He will find the Sepoys quiet, orderly men, temperate in their living, cleanly in their habits, respectful to their European officers, proud of their profession, but bigotted to their superstitious religion. They are, in general, very tractable patients, and the best possible subjects for either medicine or surgery. Their diseases are fewer than those of European troops,—much more manageable, and uncomplicated with excess in eating or drinking. The low state of their constitutions is most favourable for treatment, and their recoveries from bodily injuries are wonderful.

LVII. HOSPITAL ATTENDANCE.

The hospital-visits are made at sunrise and sunset; the latter visit is generally considered discretionary. Instruments and medicines are supplied by Government; even stationery, and other contingent articles. All medicines should, if possible, be seen given by the medical officer, as that is the only guarantee for their being taken. This is not very difficult in the majority of cases; and a stock

of doses of medicine should always be ready made, and carried about in a tray, to be given during the visit. They should be administered by a man of good caste, otherwise the Sepoys would consider them unclean, if passed through the hands of a man of low caste. The doctor must now learn to respect their prejudices and superstitions, for they are the fundamental principles of their religion, and as sacred in their eyes as the Ten Commandments are in his. Nay, he must consider himself an unclean being compared with them; and not venture to touch, with his own hands, the medicines he prescribes. Of all things, he must guard against coming near them when cooking. Every man cooks his own food, generally out of doors; and, to guard against contamination, they mark out a circle, about eight feet diameter, in the centre of which they cook and eat. A greater outrage could not be offered them than stepping into this sacred circle; and, were any European to do so, a strict Hindoo would consider his meal polluted, and cast it to the dogs. I have seen a poor villager stop in the midst of his repast, and scatter his morsel of rice on the ground, because I inadvertently passed by, so near that my shadow fell upon it; and I have witnessed an old woman, returning from the Ganges with a jar of water on her head, pour it

out as an abomination because I accidentally met her on the path.

LVIII. RECRUITING.

One of the most important duties the Medical Officer has to perform, is the examination of recruits, for without his certificate of their efficiency, no Seapoy is enrolled in a regular regiment. Every recruit should of course be stripped to the skin, and be carefully examined from head to foot, as carefully as if he were about to buy a horse. In recruiting districts, Surgeons are often called on by Native officers to examine recruits for regiments far distant. While stationed in Oude, I have frequently examined thirty or forty in a morning. Of course I granted no certificate: but did so, out of public motives, to oblige the Recruiting Officer, and prevent him leading ineffective men to a distance, where they would eventually be rejected. The Natives of the Upper Provinces, from whom alone recruits are drawn, are not liable to many constitutional disorders unfitting them for public service. Scrofula, that blight of British climate, is little known amongst them, and few races have so little deformity. Many will, however, present themselves, unfitted by accidents; others from impaired vision, affec-

tions of testis, and varicose veins. This last is very common, but I don't remember to have seen any cases of that alone unfitting men for duty. Three-fourths of the population are subject to some affection of the skin, but this is so very general, as not to be considered a cause of rejection.

LIX. MALINGERING.

Malingering is not a common practice amongst Seapoys. When such is suspected, the state of the pulse, the temperature of the skin, the colour of the tongue or eyes, are good criterions to judge by. One should always give the suspected the benefit of a doubt, for it is better to be imposed on for a time, than refuse admittance to a man actually unwell, and who may die suddenly in the lines. The Seapoy is at no period of his service so apt to malinger, as when he wishes to invalid; and on such occasions, much penetration is necessary to detect him, for when such is his purpose, he has perseverance to induce stiff joints and contracted muscles, by doggedly sitting in one posture. He must not be annoyed, if now and then some patient distrusts his prescriptions, and prefers being treated by sacrifices and incence, in his own way, instead of by calomel and opium in his; for, in extreme cases, they are very apt to return

to their birthright notions, and invoke the aid of some of their numerous deities.

When change of air is thought necessary for the recovery of any man, the Surgeon has it in his power to give a certificate to that effect, and the leave of absence is granted. This is one of the most difficult duties the Surgeon has to perform, for patients, both Officers and Seapoys, often importune to obtain it, when they would sooner recover at their post. Surgeons at out-Stations, especially in the Upper Provinces, are often applied to by Seapoys on leave of absence, for extension of leave, on plea of sickness. Some, there no doubt are, who have just claims for such indulgence; but it is no unusual thing for a Seapoy to bring a sick man as a substitute, who personifies him, and in the Seapoy's name gets, or tries to get, the required certificate.

Flogging has for some years been abolished, as a punishment in the Native army, though still retained in the Christian.

LX. MEDICAL DUTY OF CIVIL-STATIONS.

The next Medical Charge I shall refer to, is that of a civil-station. A law was at one time laid down, that no Assistant-Surgeon should hold permanent charge of a civil-station till he had been two years in the service; but that has, from

almost necessity, and the paucity of Assistant-Surgeons so qualified, not been acted upon. The consolidated pay of an Assistant-Surgeon of a civil-station is 300 rupees per month, to which are added 30 rupees for the maintenance of a palanquin, and 20 for vaccination; and, if he be lucky, he may have 50 rupees for charge of the post-office, and still something extra as registrar. He also is allowed C. R. 12 8 annas for every hundred Seapoys committed to his charge. His duties are the prisoners of a jail, varying in number from 300 to 800, or more, and the civilians of the station, three, six, or eight in number, their wives and families, and the Native servants of the Court. By way of making up for his low rate of pay, the Civil-Assistant-Surgeon is allowed to trade; but this, so far from being a boon, has been the ruin of most that have tried it. It is worthy of remark, that when the Company themselves gave up the privilege of trading, that any of their servants, or at least that those joining the service thereafter, should be allowed to speculate. Medical men are not fit to compete with other merchants; and, in nine cases out of ten, they are losers. Such trading-surgeons cannot be efficient practitioners; and when called into active military duty, as all are called eventually on promotion, they must find their talents impaired. During the period of their merchandise, their

actual duties are apt to be thought a secondary affair, and their mercantile the principal; and even, in the event of their speculations turning out profitably, they are liable to be called away to join the army, at the hazard of ruin or great loss; and all this simply because Government chooses to keep them on a lower rate of allowance than others of their own standing in the army. Fortunately, few Civil-Assistant-Surgeons avail themselves of the privilege of trading, but prefer their curtailed allowances rather than enter into speculations that would most likely be attended with loss.

As might be expected, civil-stations are not so much desired as at one time they were. The life that many Assistant-Surgeons lead is that of a hermit,—every one is busy but himself,—for his own duties don't occupy a tenth of his time; and unless he be able to draw largely upon his own resources, he is very apt to fall a victim to his old enemy, *ennui*.

The principal charge of the Civil-Surgeon is the sick of the jail; the list of which, compared with the number of prisoners, is very heavy. The number of prisoners in Bengal amounts to about 40,000; and the mortality sometimes runs as high as 25 per cent. per annum, and rarely falls below 5 per cent. Flogging is now abolished, as a punishment, amongst culprits, at least not more than a

dozen lashes are allowed to be inflicted; so that most crimes are punished by imprisonment; and, the more aggravated, by transportation or hanging. The principal penal settlements are Singapore and Penang. All prisoners are fettered by chains on the ankles. During the day they are employed in labour on the public roads; at night, they are locked up in the jail. They are clothed and fed at the public expense, the provisions being served out to them ready cooked.

The Civil-Surgeon will frequently be called upon for his opinion in Medico-legal matters; indeed, he is the only reference on such subjects; and will do well to keep his knowledge of that branch of his profession fresh in memory.

He will also be occasionally consulted by the inhabitants in his district; and is, on such occasions, allowed a discretionary power of supplying their wants from the public stores. I have elsewhere stated, that the consciousness of having done a good action must, in the majority of cases, be his only reward. Those who could afford to give a fee, are mean and niggardly in the extreme; and, those who cannot, are as niggardly of their gratitude.

LXI. NATIVE CHARACTER AND DISEASES.

It is now time to give the young Assistant-

Surgeon some idea of the Natives, and of their manners and customs; but, on a subject so very extensive and so very complicated, nay, so very incomprehensible, I find much difficulty in compressing it into an epitome condensed enough for this essay. The great mass of the Native population are either Hindoos or Mussulmen. In outward appearance, there is but little distinction; but, in reality, no bond of union, no social intercourse, subsists between them; they are equally intolerant of each other's religion,—equally repugnant to intermarriage.

In physiognomy and stature they are much alike; their dress, in many respects, is the same; and their moral character is pretty equally balanced.

People of this country are very apt to form a wrong idea of them, and identify them with the African or the West Indian. But, in reality, they are a very handsome and a very civilized race, and were it not for their copper colour, they would be acknowledged as fine models of the human species, even in our own exclusive island. Again, many suppose that, because they go almost naked, they must necessarily be pinched by poverty; but the Grandees, that drive their own carriages, take their airing with a great proportion of their persons naked; and, even those of the poorer class, have gold and silver ornaments in use that would

clothe them many times over. Much has been said about their ignorance; but I suspect that out of a thousand Natives, picked up at random, as many individuals could be found able to read, and write, and calculate, as in many parts of Europe. It is true, the female part of the population knows very little of these accomplishments; but this is only a peculiarity in their national manners; for such learning is considered as superfluous to them as Hebrew and Mathematics would be to ladies in this country.

Much commisseration has also been expressed in public meetings respecting the secluded lives to which the females of India are doomed; but they themselves don't consider it in the light of a grievance: on the contrary, they would think it the acmé of misery to be subjected to the public gaze and admiration as with us. Many erroneous opinions have been propagated respecting the hardships of the Natives, caused by the alleged grinding system of Government; but I believe there are few of the present generation who have known what it was to be subject to their own Princes, but bless the day when they were allowed to claim the protection of the Company. Much horror has been expressed respecting the enormities of their idolatry, as well as disappointment at the slow progress of their conversion to Christianity; but those who have seen the difficulties,

will not be surprised that the number of converts is so small. The propagation of the Gospel has many obstacles to encounter in India that it has nowhere else, viz., the fascination of caste. No Hindoo can espouse Christianity without losing caste; in other words, without being cut by every member of his family, every one of his acquaintances, every professor of his religion. He is disowned, as a vagabond and a renegade; his contact is shunned, as contamination; and association with him, under any circumstances, would not be tolerated.

The great diseases to which the Natives are liable are intermittent fever and its sequilæ,—engorgements of the liver or spleen. Many of them are so accustomed to ague, that they don't feel much inconvenience from it; they lie down till the paroxysm is over, and then get up and go about their usual occupation. When they are attacked with continued fever, the case is very different; and they sink under it faster than Europeans do.

LXII. CHOLERA.

I am inclined to think, that Cholera is much less frequent now, than it was fifteen years ago. During my service in India, I have only twice seen it as an epidemic; but on both occasions its ravages were truly dreadful. The first time I saw

Cholera as an epidemic, was in the campaign against the Chooars, in 1832. Soon after leaving Barrackpore, in November, it showed itself in the camp to which I was attached. For nearly a month it assumed the sporadic form, selecting for its victims the camp followers, and the weaker Seapoys only. Though a good many of those attacked were carried off, still it did not excite much alarm; and we hoped, by constant change of ground, and the cold weather increasing, to leave it somewhere behind. However, after we had penetrated about twelve marches into the interior of the enemy's country, it burst out at Luckipore with all the violence of an epidemic, and raged for several days with most appaling mortality. The hospital became crowded to excess; two, three, or four poor fellows were carried in every hour; and so rapid was the progress of the disease, that many died a few hours after they were attacked. Many of the followers, rather than run the risk of living longer in camp, fled into the forests, and attempted to find their way home; running the risk of meeting upon their path the numerous beasts of prey, and the enemy, as savage as merciless, and still more dangerous than the wild beasts, through many a weary mile. The retching of those attacked—the groans of the dying, and the lamentations for the dead, occupied the ear incessantly night and day; graves were seen digging in every direction, and

funeral piles smoking all around, tainting the very atmosphere with human empyreumatic odour. Flocks of kites and vultures hovered over the dismal scene, screaming to be deprived of their expected prey. Troops of jackalls prowled about at night, tearing open and robbing the newly-tenanted graves; and the short hoarse bark of the hyena, like a knell from a death's-head, grated upon the startled ear, warning us of our mortality, and of his, perhaps, groping for our bones before another day's dawn. Public religious processions were frequently performed by the Natives, each caste separate by itself, with all the noisy solemnity characteristic of Hindoo and Mussulman rites, the one trying to out-do the other in their supplications to their favourite deities, to abate the dreadful calamity; and, to complete the tragical scene, the savage enemy, apparently exempt from the disease, looked on composedly, from the skirts of the jungle, ready to empale with their arrows any one who ventured beyond the piquets, and anticipating our extermination without any efforts of theirs to assist.

When things were in this condition, we broke ground, marched two days in succession, and halted at Boonga. We had not a case of Cholera after leaving Luckipore. It is pretty well ascertained, though not easily accounted for, that if Cholera break out in camp, and that camp be

broken up into parties, the chances are, that the greater number of parties will be exempt. This was strikingly exemplified in two companies of the 34th Native Infantry, that were detached: they had not a case of Cholera after, though it continued with the Head-Quarters. The number of deaths on this occasion amounted to about seventy: about three-fourths of these were camp-followers. Most providentially, not a European officer was attacked; such is the caprice of this awful disorder.

The last time it was my fortune to meet with Epidemic Cholera, was in May and June, 1834, while in Medical charge of the Civil Station of Goalpara, in Assam. Its progress up the Brahmapootra was very well marked, but slow. I first heard of it at Dacca, some time after at Jumalpore, next it reached Goalpara, then it proceeded to Gohatti, thence to Bishnauth, and all in regular succession. Several weeks elapsed during its progress from Dacca to Bishnauth. In the town of Goalpara, with about 4,000 inhabitants, about 300 died of it. It continued to rage for six weeks. Its virulence seemed to have abated at Bishnauth, where only a few died.

Though Cholera so rarely assumes the Epidemic type, an occasional case happens at all seasons.

LXIII. SCURVY, &c.

Scurvy, though considered rather peculiar to

seafaring people, has, of late years, shown itself in many parts of India. On my assuming Medical charge of the Civil Station of Gohatti, in 1836, I found it prevalent amongst the prisoners, and that many of them had, previous to that time, died of it. The mouth was the chief seat of the disease. It manifested itself by a paleness and sponginess of the gums, and looseness of the teeth; or by a foul ulcer inside the cheek. All the symptoms of profuse salivation rapidly ensued; the gums became a mass of suppurating matter, the teeth dropped out, the ulcer spread over the mouth, the cheeks sloughed away, the patient sank exhausted—or, if he recovered, he was frightfully deformed. The Hospital stores contained almost no anti-scorbutic. Oranges and lemons, indigenous to the neighbouring hills, were then plentiful in the Bazaar. I bought them in basket-fulls, prescribed them *ad libitum* in every case, and found them a perfect specific. I was fortunate in losing only one or two cases, and these were far advanced before they came under my care. No symptom of this disease showed itself amongst the Europeans at the Station.

Scrofula is a rare disease amongst the Natives, as is also Phthisis; and it is generally allowed that India is very favourable to Europeans affected with these diseases. Elephantiasis, Leprosy, Hydrocele, are common; Syphilis and Gonorrhœa are prevalent every where.

LXIV. EASY RECOVERY OF NATIVES FROM INJURIES.

I have already adverted to the ease with which the Natives recover from surgical operations, or severe bodily injuries; and, as good examples of this, I have selected the two following from many others that I could quote from my notes. While performing the duties of one of the columns of the Jungle Mehals Field Force, in 1833, a grass-cutter was surprised by a party of the enemy near camp and literally cut to pieces. One of his hands was chopped off by a sword above the wrist, and the stump was nearly amputated at the elbow by a second blow; he had a third blow on the shoulder of the same side, penetrating into the joint; his only remaining hand was cleft in two up to the carpus; besides several other slashes, he had a cut across the abdomen, from the umbilicus to the spine, dividing the walls, and cutting through the peretoneal coat of the colon; a great part of the intestines protruded, and lay by his side. There was no hæmorrhage when I saw him, the bleeding from the arteries had stopped of its own accord, and the pulsation was perceptible under the coagulum. With the obliging assistance of Lieutenants Sissmore and Tickell, I amputated the arm above the elbow. My chief dependence in

treating the enormous wound of the abdomen, was in stitches about one inch apart, as deep into the parietes as I could, so as to keep clear of the peritoneum; and in raising his shoulders and loins so as to relax as much as possible the muscles of that side. With all the inconvenience of constant marching, this man's stump healed by the first intention, as also did a great portion of the immense wound on the side. As I expected, the wounded colon eventually gave way; an artificial anus was formed, and the fæces were in part discharged by the wound; but the aperture in the intestine adhered to the edge of the opening in the integument, and the two orifices being in opposition, none of the fæces were discharged internally. He still continued to have passage by the anus. About three months after his disaster, all his other wounds were cicatriced, and the artificial anus, an orifice large enough to admit the finger, alone remained. I once tried to close it, by cutting out a circular portion, and bringing the raw edges into contact by the twisted suture, but the man was too fond of running about to allow of it's taking effect. Several months after, I saw this man in Midnapoor; he was quite lusty, and in excellent health and spirits; but his body was a good deal bent towards the wounded side. The artificial anus was then reduced to the size of a goose quill. It was my intention to try and close it by the actual

cautery, but I was only recovering from a Jungle Fever, and had not strength to perform any further operation.

The other case which I have selected, happened to me while in medical charge of the 1st. Regiment of Cavalry Oude Auxiliary Force. A troop-horse bit a camp-follower on the wrist, and lacerated the parts so severely, as to form a compound dislocation of the joint. When I saw him, the radius and ulna protruded through the integuments, and lay in the palm of his hand, the articulating process of the radius was torn off, and the periosteum of it and of the ulna was a good deal abraded, as were also the bones of the carpus. I reduced the bones easily, dressed the wound lightly and loosely, placed the arm upon a splint, and kept it wet with cool fomentations. On opening it two days after, I found the integuments swollen and highly inflamed, and the ends of the radius and ulna black and denuded of periosteum. Having no hopes of saving the joint, I turned the bones out, and sawed off about two inches from each, and reduced them, brought the abraded carpus into approximation, re-applied a splint, and endeavoured to unite them. Several abscesses formed in succession around the parts, and, on one occasion, one of the bones of the carpus (the pisiform,) came away; but, by the

constant use of the splints, a bony union took place, and the man retained a useful hand.

LXV. TETANUS, RARITY OF.

An opinion generally prevails, that Tetanus is more prevalent in hot climates than in temperate ones. I have not found this to coincide with my experience; during a whole campaign in which I served, I had not one case of Tetanus amongst the numerous arrow-wounds that fell under my care; and during seven years' experience of India, part of which I held charge in the General Hospital, Calcutta, and part charge of a regiment of Native cavalry, about 800 strong; in which kicks, bites, fractures and lacerations, were frequent, I have seen only one case of Tetanus, and that was caused by a bullet lodging in the scapula of a Native, and indeed fatally.

LXVI. MALARIA, ITS PROPERTIES AND CAUSES.

It is a generally-received opinion, that the greater proportion of diseases with which the Natives are affected, are the consequence of malaria generated in the decomposition of vegetable matter; indeed, no fact is better ascertained, than that a certain quality, whether a gas or a vapour,

a film or an impalpable powder, is evolved by vegetables exposed to heat and moisture; and undergoing the process of putrefaction, which has the property of engendering fever when brought in contact with the body. This miasmata is generated in greater quantity in autumn and spring than during other seasons of the year; is more potent, at full and new moon, than at other periods; and more active between sunset and ten o'clock, than during the rest of the day. Miasma seems to possess gravity, for people that sleep on the ground-floor are more frequently attacked with fever than those who live in the upper stories; and some European cultivators preserve their health in the Sunderbunds of the Ganges, merely by living in lofty houses; whereas, if they slept in the lower story, they would suffer very severely, or die of fever.

Miasma is capable of being dissipated by heat; a moist atmosphere is more favourable for its action than a dry one, and a person may sleep in a marsh with comparative impunity, if he sleeps beside a watch-fire. Miasma is actuated by the same laws that actuate the atmosphere, and may be conveyed by the wind to a considerable distance, with its properties unimpaired. A ship may anchor a mile distant to windward of a marshy island with impunity, but if she anchor

the same distance to leeward, she will in all likelihood be attacked by disease.

An army may encamp with impunity on the sea-shore of a pestilential island during one monsoon, and while the wind is from the sea; but if the monsoon change, and the wind from the interior blow over the camp, they are certain of being attacked. Miasma loses its property of producing fever, in its progress on the wind, as if it became too much diluted to take effect; and a town may be situated five or six miles to leeward of a marsh, and not be subject to fever, whereas, if situated within one mile, it may have many. People constantly exposed to malaria become inured to it, and enjoy comparatively good health, where a new-comer would suffer. The Garrows, one of the hill tribes of India, are the most powerful athletic race of men I have ever seen in India; yet they inhabit a country, into the interior of which no European could penetrate, without the certainty of a most dangerous fever. In some parts of South America, when a slave makes his escape from bondage, he finds a safe asylnm in some noted malarial jungle, well knowing that his master would follow him thither at the risk of his life, and would rather lose his slave than attempt to pursue him. Landholders frequently take advantage of their being seasoned

to some marshy situations, by renting their farms at a very low rate; when a succession of causalties to strangers has prevented people in general from having anything to do with such unlucky spots. In most cantonments in India, there are certain marked-houses known from their unhealthiness, and these are generally waste, or only occupied for a month or so by strangers. There are generally some good grounds, for the reputed character they bear, and though it be a popular opinion, it is, perhaps, the safest plan to retain it. The state of sleeping, or waking, materially affects the disdisposition to misamata. A person may be exposed when awake to miasma and not suffer, but is much more predisposed to an attack, if he is exposed to it asleep; as if the guardian that protected the constitution while awake, went to sleep along with its master, leaving him unprotected. Hence, the danger of sleeping in a marsh; nevertheless, a man may even sleep in a marsh with less harm, if he take the precaution of tying a gauze veil over his face. Hence, an advantage of the native mode of sleeping with the head wrapped up in a cloth, which no doubt saves them from many an ague.

A belt of high trees, intervening between a marsh and a town, is known to afford a similar exemption to the inhabitants. Numerous in-

stances are recorded, of towns being suddenly subject to fever, after the cutting down of such high belts of trees; and of others being benefitted by having a grove of trees planted between the miasma and them, to windward. If I mistake not, the station of Purnea became suddenly unhealthy, from the cutting down a certain grove of high trees in the neighbourhood. All the types of intermittent fever may be occasioned by the same exposure to miasma. Four persons may be exposed at the same time, one may get a quotidian fever, one a tertian, one a quartan, and one may escape; and the one may be attacked an hour or two after the exposure, another a day or two after, and another a week or two after, the seeds of fever lying dormant in the constitution. Such are some of the acknowledged properties of malaria.

LXVII. MARSHES.

It is a well-known truth, that marshes are the principal sources of this miasma, and hence its name of marsh-fever; that the inhabitants who live contiguous to them are more liable to ague than others, where no marshes exist; that strangers, on visiting marshy districts, are attacked with ague, that they would elsewhere have escaped; that marshes may be deprived of their miasma,

by being drained and cultivated; and that cultivated lands may become noxious, by being kept in a state of inundation. That Calcutta is so much more healthy than it was in former years, has been chiefly indebted to the draining of its marshes and jeels, and cutting down jungles; and that cultivated lands may be almost depopulated by inundation, was manifested in the awful mortality from fever, that followed the great deluges of Balasore and the Twenty-four Pergunahs, bordering on the sea of recent years, sweeping away thousands and thousands of the population. The station of Hansi, in Upper India, is another instance of the generation of fever from an excess of irrigation. The country round Hansi is naturally dry and arid, so much so, that it was found necessary to convey water from a great distance by canals, for the purpose of cultivation. Hansi was at one time, and previous to the formation of canals, a healthy station, but from the excess of irrigation, the country has become a perfect nursery for fevers, and is nearly uninhabitable. Hence, also, is the reason why the months of August, September, and October, are so eminently unhealthy. In these months the periodical floods are subsiding, the country is covered with sheets of water evaporating to dryness, and abounding with decaying vegetation, each pool of which is a source of fever. During these months, the in-

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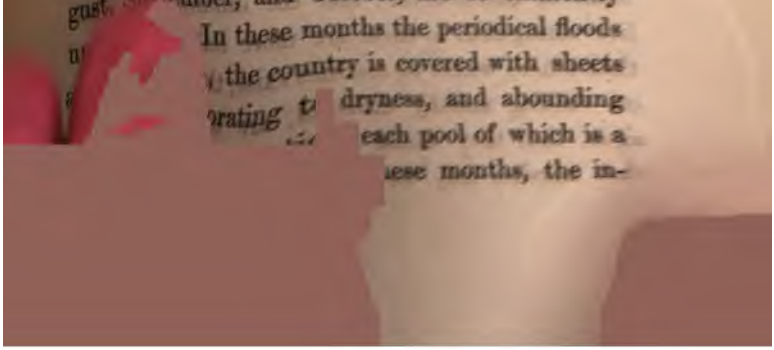

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the country is covered with sheets
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habitants of many malarial countries fly from their homes, as they would from certain death, nor venture to go back till the unhealthy season is over. The Tarai, along the foot of the Himalaya mountains, the river at the mouth of the Indus, and the Sunderbunds of the Ganges, are in a great measure deserted in these seasons, few remaining exposed that can effect their escape. Many parts of the interior of India are, in these months, insulated by tracts of jungle, and no one who is aware of the consequence, or values his life, would willingly venture through them. During the months of May, June, July, August, September, and October, the jungles of India are very unhealthy; and no European ought, if possible, to venture beyond the limits of cantonments.

LXVIII. RICE-FIELDS.

The same laws that operate in rendering marshes miasmatic, also operate, though, perhaps, in less degree, in the rice-fields of India. Towards the end of the rains, and while the fields are still flowing with water, the ears are cropped, and the straw is allowed to remain to ferment, and form miasma. This is not a visionary idea; for so strong is this belief that rice-fields produce miasma, that in many places in the Continent of Europe, and far less favourable to the develope-

ment of malaria than India, the laws of the kingdom prohibit the growth of rice for that very reason.

LXIX. TANKS AND POOLS.

But marshes and rice-fields are but two of the many sources of malaria to be seen on every hand in India. Every native of rank has a nursery for fever in the immediate vicinity of his house, called a tank or pond; and every poor man a pit or a pool, which seem as if made on purpose to supply them with malaria, as well as with muddy-water and water-lillies. I do not mean to attribute any blame to tanks and ponds, if kept properly clean; they would then be both useful and ornamental; but from the weeds and jungle that in most cases are allowed to infest them, they exert the most baneful effects on the constitution of the inhabitants.

If the ditches of Fort William were allowed to remain filled with stagnant water, and become a field for studying the botany of reeds and rushes, its present healthy character would speedily leave it; and were the numerous tanks throughout Calcutta left to nature, to overgrow with weeds, the consequences would be truly melancholy.

LXX. JUNGLE.

Another hot-bed of malaria is the quantity of underwood and jungle with which most Native habitations are choked up; so impenetrable, as to form a barrier to all encroachment from without; and a screen, through which the eye of curiosity cannot penetrate. But this belt of jungle is also the seat of malaria; and the better it answers the purpose intended by its owners, the more concentrated is the malaria, which the dense mass of vegetables that die every season engenders. These belts of jungle are pregnant with another evil; they are the usual resort for performing the calls of nature; and the effluvia from the daily deposit of so much filthiness, comes in for a large share of the illness entailed upon the household.

LXXI. NEGLECT OF VENTILATION.

Another cause of fever is the total disregard to ventilation in Native houses. It is well known, that a close, confined atmosphere, is the most favourable place for the action of malaria, and that nothing dissipates it so readily as a current of fresh air; but, in Native houses, the doors are few, the windows still fewer, and both seem constructed on purpose to admit as little of the vital air as is consistent with the smallest possible quan-

tity of light; and these are, for the most part, obstructed with mats or screens. Moreover, the premises are frequently surrounded by a lofty wall or matting, which, with the trees outside, render it almost a matter of impossibility for any useful ventilation to take place. This same obstruction to ventilation is seen on the grand scale around almost every town in Bengal. The suburbs of every large city resemble a dense forest more than a habitation proper for human beings. Even the city of Calcutta is surrounded with a cordon of populated jungle, that must be obnoxious to the inhabitants of its palaces; and the salt-water lake may be considered as a grand depôt of fever.

LXXII. RUINS.

Another cause of miasma is the quantity of ruined houses, and deserted grounds around the ruins, with obstructed drains and decaying trees. I am afraid these are but too little thought of, even by a European police. Having stated the principal sources of malaria,

LXXIII. PREDISPOSING CAUSES OF FEVER.

I shall next mention a few of the many causes that render the constitution susceptible of its action.

A sound mind, in a sound body, has long been acknowledged to be the best safeguard against malaria. A man in good health, and of a cheerful frame of mind, may be many times exposed to the influence of fever with impunity; whereas, if labouring under any bodily ailment, or depressing passion, he is very liable to catch disease. Hence, poor diet, bad water, scanty clothing, wretched houses, famine, fatigue, melancholy, prepare the body for the seeds of fever; and the weak and inanimate are more frequently victims than the strong and the active.

LXXIV. DRESS.

The scantiness of clothing, customary amongst the Natives, must be a frequent sŏurce of disease. They have no adequate protection against the cold weather, and suffer severely from the mornings and evenings. Tattooing is but little practised; though some females have a spot, like a diamond, between their eye-brows, or a ring round their arm, like an armlet.

There is a modification of dress, used by the Nagas, one of the hill tribes of Assam, which, from its exceedingly primitive nature, is worth notice, and compared with which even the fig-leaf is full dress. These Nagas go literally naked in their native hills; they have, however, some

remnants of modesty, and this is marked by having a fold of the preputium drawn through a small ivory ring, and worn in that predicament. They would think it highly indecorous to appear in female society without this certificate of chastity. These rings are sold in the bazaars of Munnepore, all of which are kept by women; and such is the force of habit, that these ladies think no more about the matter, in fitting a handsome Naga with this inexpressible, than they would his great toe with a ring.

LXXV. LOW DIET.

The exceedingly low rate of living among the poorer classes, strongly predisposes to fever. I wish I could as easily point out how it could be amended, as demonstrate its hurtful effects. Many of the articles of diet are very objectionable, either from the material itself, the manner of preparing it, or its mode of cooking.

None is so deleterious as the half-cured, or wholly putrid, fish, so much in use by the poor. Fish, prepared in this way, require little salt, and go a great way farther than if fresh or properly cured; but, in proportion as they spare the price of the individual, they sow the seeds of disease in the frame. Raw rice, under-baked bread, raw, green fruits, deficiency of salt, and the inveterate

practice amongst some classes of Natives of eating opium, must have a powerful effect in lowering the tone of the constitution.

But putrid fish is a delicacy compared to what some classes of Natives indulge in. Aghorpunts, or eaters of dead-men's flesh, are occasionally met with. During my service in Assam, two men of this sort were sent to me by the Magistrate of Goalpara, to have my opinion as to their sanity. One of them was not exactly *compos mentis*; but the other was of sound mind, and told me he had been in the habit of eating human flesh for many years. The poorer classes cannot afford the luxury of salt, and are in the habit of using wood-ashes as a substitute.

LXXVI. IMPURE WATER.

No part of diet is more frequently at fault than the water used for drink. One would expect that the Natives of India, so excessively careful of defilement in their manner of eating and drinking, would be very particular about their water, their only beverage; and that nothing less than the produce of the crystal spring, or the rain-water, in all its purity, as it fell from the clouds, would satisfy them. But no nation I have ever seen are so notoriously indifferent about the water they drink. If we visit any of the legitimate places for

lifting water, any of the ghauts of the river, we shall see a dense mass of naked people, of all sexes and sizes, standing up to their middles in water; some washing their clothes, some their bodies, and all stirring up as much mud from the bottom as they can: yet, when their ablutions are completed, filling their pitchers where they stand for the day's consumption. Probably, one of the common sewers of the bazaar enters the river a few yards above the ghaut. It may happen that the surface of the water is strewed with the yet warm ashes of some lately incinerated human being, or that a putrifying human carcase is revolving in an adjacent eddy. If we visit any of the private tanks, we shall see a spacious pool of water, shaded with tall trees, and garnished with weeds, the necessary reservoir of all the surface-water in the neighbourhood,—a perfect infusion of every thing offensive and filthy about the place, and literally alive with animalculæ,—here, too, we shall see the same scene of washing clothes and scrubbing bodies, and other acts of uncleanliness. Yet, from this same pool, they draw their daily supply of water, and wonder that they should become sick from using it.

LXXVII. BATHING

The universal practice of bathing, prevalent in India, has, I have no doubt, a bad effect upon the

health of the people. In a country such as India, where so much of the body is exposed, naked, to the accumulation of dust, and clamminess of perspiration, it was, no doubt, a wise and provident law that instituted ablution as a religious rite, for no other plan so effectual could have been devised to insure cleanliness and a healthy state of the skin. But I am afraid bathing is often abused; that it is considered in the light of an ordinance of their religion; and is practised because people think it ought to be practised, without any regard to the season of the year, the state of the weather, or the condition of the body, as to health or disease. There, no doubt, are cold, raw, rainy days in the summer season, and bleak, withering days in winter, when people, even in good health, would be much better in their beds at home than doing penance on the bank of a river; and a person labouring under diarrhœa, or dysentery, or internal inflammation of any kind, or under the influence of mercury, would be committing an act of great indiscretion in taking a cold-bath. Yet we know that people do bathe every day while so affected.

LXXVIII. EXPOSING THE DYING ON THE RIVER-SIDE.

Ill-timed bathing is not the only instance of the

religious laws of the country aggravating the diseases of the people, and adding to the bills of mortality. The Hindoo practice of hurrying persons dangerously ill to the banks of the river, and exposing them in the open air, with their feet immersed in the water, and their bodies besmeared with the slime of the river, till the ordeal puts an end to their existence, must be considered as a frequent cause of death.

There is no doubt that thousands of lives are, by this treatment, taken away, that, with proper care and nursing, would have recovered. This custom, equally repugnant to human nature with Sutteeism, is probably ten times more destructive to human life. Where one person's death was caused by Sutteeism, ten deaths may be caused by this abhorred custom. The friends of a poor, dependent, unfortunate widow, incited her to the commission of suicide, in order to rid themselves of a relation who might claim a maintenance amongst them; the friends of a person dangerously ill take advantage of his helplessness, and hurry him out of the world, to rid themselves of a disagreeable acquaintance, or possess themselves of his inheritance; and if it should so happen that his constitution supports him through this trial, and he recovers, he is looked upon as an outcast and a vagabond, because he did not die. We hear of human sacrifices in Goomsur,

and other wild and barbarous places, and wonder that the earth does not gape and swallow up the blood-stained murderer; but we forget that, in the most populous cities in India, even in the city of Calcutta, sacrifices of life, no less atrocious in the eyes of humanity, are every day perpetrated.

We have only to go to any of the *Murda Ghauts*, as the public places for Inceneration are called, where we shall see the old, the middle-aged, and the young, dragged away from their homes, their families, and their domestic comforts, when such were most wanted, and exposed upon a bed-stead, on the margin of the river, with their feet drawn over and hanging in the water, and probably their mouths clogged up with the mud of the holy Ganges. In this predicament they are allowed to breathe their last, with only two or three cold-blooded hired attendants preparing the funeral pile before their eyes; and three or four vultures, grim, goary, and abominable as harpies, hopping near them, eagerly watching when the vital spark shall be extinct. The following case is so much to the point, that I make no apology for inserting it:—On an evening of January, 1837, I accompanied a Medical friend on a visit to a Native lady of rank, who had had a miscarriage that day at noon. We found her shut up in a close confined dark room, hot and suffocating almost beyond our endurance, and crammed full of attendants. The

patient was a young woman, to all appearance lately in good health; she had had no flooding, and the placenta came away in the usual manner. She lay quite insensible, breathing short and laborious, pulse not to be felt even in the humeral artery; eyes fixed and open, skin of natural warmth. After prescribing for her, and enjoining perfect quietness and rest, we went away, promising to return in an hour or two. About ten, when we called at the house, we learned that they had carried her off to the river side, where she soon after expired. I have not a doubt that if this woman had been allowed to lie quietly upon her back in her chamber, that she would have recovered. In her condition, it was dangerous even to raise her; nevertheless, she was placed upon a bedstead, carried through a labyrinth of narrow passages and stair-cases, out of a very hot room into a cold atmosphere, and jolted along on men's heads through the streets to the river—enough to cause the death of any one so situated.

I could readily enlarge on this subject, and point out in vivid colours, how often the religious opinions of the Hindoos operate destructively on the lives of the people. Their pilgrimages, their penances, their self-inflicted tortures, and mutilations; their sacrifices of themselves, and even of one another; but that would swell this paper beyond its proper

bounds. I shall, for the present, content myself with the following :—

LXXIX. THUGGY.

Amongst the many causes that in India shorten the span of life, and add to the rate of mortality, is the system of Thuggee. This system, which has of late horrified the civilized world by the heinousness of its guilt, and exhibited a picture of human depravity unparallelled in the history of any nation, has been practised in India for the last two hundred years, and continues even till this day. The blackest page in the records of the rudest and most savage state of mankind, vanishes and becomes white as snow, when contrasted with the enormity of villainy inseparable from the trade of Thuggee; and our astonishment is only increased, when we find it practiced by the courtly Mussulman, and the timid Hindoo; and, that a nation that could, out of compassion and charity, establish hospitals for sickly animals, and even crawling insects; and the greater portion of whom would shrink with horror from shedding the blood of any living creature, even for their own subsistence, can, nevertheless, exhibit a numerous sect of professional ruffians, who, with subsistence as their object, the murder of human beings as the means, and religi-

ous fanaticism as a palliation for their crimes, wander over the country like demons of destruction, regardless alike of the laws of God and man.

It is a remarkable fact, that these diabolical wretches, whose subsistence was procured at the sacrifice of two or three men per month, had, nevertheless, a fixed habitation in some Native state, where their wives and their families resided, and to which they retired with their plunder after a fortunate expedition; and what is most unaccountable, their dreadful profession was known by every inhabitant in their village, and they were regularly mulcted of part of their ill-gotten spoil, by the chief of the village, who accasionally threatened to deliver them up to justice, unless they paid him a handsome bribe. From these head-quarters, gangs of Thugs, wont to set out on expeditions, towards all parts of Hindostan, from the Sutlege to the Brahmapootra, and from the Himalayah mountains to Cape Comorin.

The extent to which Thuggee has been carried on for many years, appears altogether incredible, and the drain upon human life, in any other country less populous than India, must have been manifest and unaccountable. Previous to the noble and benevolent system for the suppression of Thuggee, now in force, every high-road was infested by prowling gangs of merciless murderers: every traveller, whose appearance

gave evidence of his being possessed of the value of a few rupees, was waylaid by one or more of the confederacy: his confidence was gained by well-disguised protestations of friendship, and ostensible acts of kindness; or his fears were imposed upon, so as to make him claim protection from those bent upon his destruction; secret retreats, for the perpetration of their deeds, were fixed like stages along a line of march; to one or other of these places of execution the unsuspecting victims were conducted, and, on a pre-concerted signal being given by the leader of the band, each traveller was instantly seized by two, three, or more of the crew, and strangled.

The persons of the victims were plundered immediately after death; their bodies invariably stabbed in some vital place, the breast or the eyes, so as to destroy all chance of re-animation, and thrown into graves dug upon the spot where they were murdered—into wells, or deep pools, or into thickets, where they were devoured by tigers. In some parts of the country, where the soil is so shallow as not to admit of a grave deep enough, the bodies were cut to pieces and buried peace-meal; for, if buried entire, the decomposition that ensued would cause them to enlarge, so as to force up the soil, and lead to detection.

One should have thought, that the first object of the Thugs would be to fly from the place of blood;

but, no: they often encamp over the very graves, cook their food, eat and sleep upon the spot, and thus efface all trace of their crimes. There are as many grades of distinction in a band of Thugs, as in a troop of disciplined soldiers. None but the most expert, whose hands are stiff with the blood of a hundred victims, or whose address in the art of decoying has shone forth pre-eminent, dare aspire to the honour of commanding a gang; in point of rank to the chief, come the stranglers, or decoyers; while those who have never had the prowess to put a human being to death, are condemned to perform all menial offices; to cook, act as scouts, dig the graves, and complete the burial. The Thug considers his trade quite as legitimate, in his own estimation, as that of any other calling; he practices it with as little compunction as a butcher or a gamekeeper; offers sacrifices to the goddess of destruction, Kali, to grant him success; and dedicates a fixed portion of his plunder to her altar, in gratitude for her protection. He venerates his profession, as the means of providing for the comfort and happiness of himself and family; pity or compassion has no hold upon his mental faculties,—horror no power to alarm him,—remorse never deprives him of an hour's sleep. He considers himself a superior being to a thief or a robber, and would not condescend to speak to such wretches; he values

himself according to his dexterity in putting an end to his fellow-creatures; and dwells upon any act of unusual atrocity, with unbounded delight. When the laws of his country demand his life, as an expiation for his crimes, he mounts the scaffold with the air of a martyr, and, scornful of being contaminated by the touch of a common hangman, adjusts the fatal cord with his own hands, and launches himself into eternity.

I have dwelt so much upon Thuggy, because cases connected with it are not unfrequently submitted to the Civil Surgeon, in a medico-legal point of view. Lest the stranger should feel alarmed at the accounts of Thuggy, I may state for his consolation, that Europeans are not included amongst the prizes for plunder. They have, from fears of detection, and, perhaps, from fears of their means of self-defence, been hitherto unmolested.

Much has been written upon life in India, to intimidate strangers; but, I believe his life as safe from violence as in his own country. Much has also been said respecting the dishonesty, the rapacity, and the want of principle of the Natives; but I believe, that he who has learned to protect himself from these calamities in old Albion, will have learned experience to carry himself, with tolerable safety, through any other region of the Globe.

LXXX. SANATARIA, RESORTED TO BY INVALIDS.

I come now to treat upon Sick Certificates, and the different sanataria resorted to by Europeans, when change of air is thought advisable to complete their cure. To a man labouring under chronic disease, or exhausted by fever, change of air, as it is commonly called, exercise the most wonderful effects. I do not pretend to explain how this change acts, or to demonstrate whether there is any actual difference between the atmosphere of the two places, or whether the subsequent effects, consequent to such a change, are indirectly produced by working upon the mind alone; but certain am I of its efficacy in completing the restoration to health, when convaleseence has begun; as also of its giving a favourable turn in cases where convalescence has not begun. Change of air, from a good to a bad climate, is sometimes attended with advantage; and this is often perceptible in removing from one house to another, or even from one room to another, or further still, from one bed to another. For the accuracy of these remarks, I appeal to every one who has had the misfortune to have a long illness. In fact, a constant change is indispensably necessary, not only in our worldly affairs, in our habits, our manners, our dress, our language, our mode of

living; but our moral nature, nay, our very system itself is constantly undergoing a change: and unless it did so, from the external cuticle to the internal linings of the heart, its functions must necessarily become deranged.

The love of change is inherent in the breasts of all men, and the more it is indulged in, the more it is desired. Hence, perhaps, a reason for the inordinate love of change of place, so remarkable in individuals long resident in India. From the very constitution of their service, they are never permanently settled; every two or three years they are found to migrate; and if longer stationary, they generally become weary of their monotonous life and dissatisfied, and long again to be on the move. When they become sick, this ruling passion is no less predominant, and its good effects being so well ascertained, the invalid's desire is, if certified by the Medical Officer, for the most part sanctioned by Government. When an officer is long on the sick list at an out-post, a month or two's sojourn at a large station, or a trip on the river, will often set him upon his legs. The sequestered life he leads is too often the root of disease, and society and change of scene his best medicine. In more severe cases, a residence during the hot season, in some hill-station (Simla or Darjiling), a month of the Sandheads, or a voyage to Singapore or China,

may be advisable. In cases still more serious, it may be necessary to repair for a year or two to the Isle of France, or Van Diemen's Land, or the Cape of Good Hope; while, in desperate cases, nothing less than a return to his native land will restore him to health. In no position is the advantage of change of air more evident than in the field, and so certain are its effects, that Commanding Officers have, in most cases, themselves to blame, if they remain in any standing camp during the prevalence of an epidemic, while they have the means of changing their ground in their power. All standing camps, in India, become speedily unhealthy, and principally owing to the want of due observance of the laws of police, in preventing the accumulation of filth, and other nuisances in their neighbourhood. No standing camp should if possible be selected, without the opinion of a Medical Committee, but this is too often neglected; the Commanding Officer preferring taking precautions against the enemy, to those against a still more formidable enemy, viz. disease. It is part of the duty of a Medical Officer, to point out the probable dangers of bad situations, and to recommend others when his anticipations have proved correct; but he must guard against being officious in his counsel, for nothing hurts a young man more than captious fault-finding, or uncalled-for remonstrance.

Should such, on mature deliberation, be thought necessary, he will do well by stating it *viva voce* to the Commandant. Official communications are powerful engines, and not to be used but on momentous occasions, and when other means have failed.

LXXXI. MODE OF APPLYING FOR SICK LEAVE.

When the Surgeon thinks it advisable to recommend change of climate for a sick officer, the usual way is, to write a short statement of his case, expressing his opinion where the patient should be sent to, and for how long. This, together with the application of the officer, is forwarded to the Commanding Officer of the regiment, and eventually to the Commander-in-Chief, and the leave is granted. But, as this often takes many days to be effected, the Commanding Officer has the discretionary power to allow the patient to proceed immediately, in anticipation of general leave. At large stations, sick officers are obliged to appear before a Medical Committee, and officers from out-stations are frequently called on to pass such Committees, before obtaining leave of absence.

When a sick officer arrives at Calcutta, he is, on application to the Barrack-Master, allotted quarters in Fort William. The first thing he does

is to present his case to the Garrison-Surgeon, or some one of the Presidency-Surgeons; and, if he concurs in the recommendation of change of air, he certifies to that effect, and refers the invalid to the Medical Board. If he is able to go out, he is called to appear in person before the Board; but if not, one of the members of the Board visits him; and if thought necessary by either party the Medical Board sanction his leave.

He next must obtain vouchers of there being no demands against him from the Paymaster, the Military Accountant, the Military Auditor-General, besides the Civil Auditor, if holding a Civil Charge; and the Apothecary-General, if in the Medical Service. Furnished with these, he finally applies to the Adjutant-General for leave.

It would be very desirable, if possible, to simplify the forms to which invalids are subjected before obtaining leave of absence to proceed to sea. By the above arrangements, eight or ten days are often spent before it is obtained; and I have no hesitation in saying, that severe cases have frequently been aggravated, and that lives have been lost, by such detention.

LXXXII. HILL-STATIONS, SIMLA AND DARJILING.

The hill-stations frequented by invalids are

Simla and Darjiling. Formerly, Cherra-poonji was resorted to, but it has now gone into disrepute. Both Simla and Darjiling are situated on the great Himalayah range; though some hundreds of miles distant from one another, and in different latitudes, they possess nearly equal altitudes, and a similar climate. Their advantages, however, are thought by many to be more prophylactic than therapeutic; and Mr. Martin, in his valuable Topography of Calcutta, and who, from his extensive practice as a Presidency-Surgeon, has had ample means of basing his opinion on good grounds, thus writes:—"From an extensive observation of the effects on health of a residence in the mountain-ranges, I should be disposed to consider them as chiefly beneficial in preserving health; and in this sense they will always be found of the greatest importance to military prophylaxis. I have witnessed better results, in a great variety of instances, from a two months' voyage to sea; such is its superior influence on health."

Simla has, for many years, been frequented by Europeans, and now affords all the comforts desirable.

Its altitude is about 8,000 feet, and its climate almost European. A summer-residence there is exceedingly delightful; but its winters are so severe, that most visitors abandon it during that

season, and descend to the plains. Simla is most conveniently situated for invalids from the Upper Provinces. Darjiling has only, within the last two years, been erected as a Sanatarium; its accommodation is as yet but scanty, rude, and uncomfortable; but there is little doubt that it will soon have all the conveniences of Simla, and become the chief resort for the lower Provinces.

LXXXIII. MINERAL SPRINGS.

It is worthy of remark, that mineral springs, the emporia of health in European climates, are not patronized in India, though both hot and cold ones are not uncommon. There can be little doubt of their efficiency under favourable circumstances; but, unless they were situated in the hills, they would not be frequented. At least some revolution in public opinion would be necessary to give them a preference over a resort to the hills, or a voyage to sea.

LXXXIV. TRIP ON THE RIVER.

A trip of a month on the Ganges is most generally followed by favourable results to the invalid; and now that steamers run so regularly between Allahabad and Calcutta, every comfort and every

facility is afforded for making the tour. The difference of climate between the Upper and the Lower Provinces is sufficiently great, to afford reasonable grounds for hoping to derive much benefit from a temporary change of residence from the one to the other.

LXXXV. SANDHEADS AND POORI.

The *Sandheads*, as the mouth of the Hoogly is called, is a favourite trip with the invalid Residents of Calcutta. They engage a cabin in a pilot-brig, and cruise about for a month in salt-water; and seldom return without much benefit. It is much to be regretted, that the price of accommodation is so extravagantly high, being no less than eight rupees a day, or more than the whole pay realized by an Assistant-Surgeon while on leave of absence.

Instead of cruising at sea, some prefer landing on the coast, at the station of Poori. Its climate is highly spoken of, and I believe deservedly. Its best months are February, March, April, and May. During the South-West monsoon it is difficult to land, on account of the heavy surf; and a dawk trip is what few invalids can encounter.

LXXXVI. PRINCE OF WALES' ISLAND.

The Straits of Malacca are much resorted to by

invalids, especially during the hot months. It is somewhat curious that the climate of the Straits, though almost under the Line, is less hot, or at least less oppressive, during these months, than Bengal. Europeans do not dread the sun as they do in India, but walk about at all hours of the day without apprehension.

Penang, or Prince of Wales' Island, was, in former years, a favourite resort; but latterly it has become very unhealthy; and many of its houses, from the casualties that occurred in them, are or were, when I visited it in 1836, deserted. George-Town, the capital, stands upon a large tract of level ground on the main land-side of the island. It is but of small extent; and the houses of the Residents are scattered over a space of three or four miles in diameter,—indeed, almost to the foot of the mountains. This plain is so little raised above the level of the sea, that a considerable part of it is flooded at high-tide; and, where the sea is banked out, it is saturated, and flowing with water, so as to fit it for rice cultivation. Large tracts are planted with nutmeg, and other fruit-trees, so as to convert it into a forest; and nearly equal portions are in a state of nature, overgrown with mangrove, jungle, and other brushwood. The mountains are excessively steep on all sides, and clothed with impenetrable forests. On the summit of one of these mountains stands

a house, belonging to Government, which has a climate about ten degrees cooler than that of the town. There are several other country-houses planted on most picturesque points amongst the hills; but, as I have said, people are afraid to live in them, from many of their former possessors having died of fever. The population of Penang is extremely mixed, being Malays, Burmese, Chinese, and Hindostanies. Most of the proprietors are engaged in nutmeg plantations. Penang is one of the penal settlements of India, and a large number of felons are there undergoing punishment. The troops are supplied by the Madras Presidency.

LXXXVII. MALACCA.

Malacca is the next station in proceeding down the Straits. The country around it is low and swampy rice-ground, often flowing with water, and here and there varied by a little rising hill. The scenery is any thing but agreeable; for the most part a forest of fruit-trees, whose trunks the sun is never permitted to approach. The atmosphere is intensely damp, the sky is generally cloudy and overcast, and heavy showers, frequently accompanied with a hurricane, fall for hours at a time, and nearly every day; yet the weather is otherwise cool and refreshing, and the Residents speak in favourable terms of its climate. The town

is of large extent, and may contain 15,000 inhabitants; of whom 2,000 may be Chinese, and 3,000 Portuguese; besides several respectable Dutch families.

The Chinese are the most wealthy and the most important, and give occasional parties to the Europeans. I have had the pleasure of taking a seat at their table; and was highly gratified with their hospitality and politeness, as well as with their intelligence and liberality of opinion. Malacca is very seldom visited by Europeans in search of health.

LXXXVIII. SINGAPORE.

Of all the stations in the Eastern Archipelago Singapore is most patronized. Singapore is the great half-way house between India and China; and several ships call there almost every day, taking in wood and water, stores and cargo. The harbour does not admit of ships entering it; but there is an excellent roadstead, with a fine sandy beach, and no surf to prevent a boat from landing.

Every morning has its sunshine and its sea-breeze, and every afternoon its cool, refreshing shower; and the nights are so cool and congenial, that a blanket is found quite agreeable. Singapore is chiefly beneficial to the invalid during the hot

months. The cold weather of India far exceeds it. Singapore has no cold weather; but a series of cloudy, and clear, and dry, and rainy days, with nearly an equal temperature throughout the year. The town of Singapore is built on a plain, almost level with the high-tide. Many parts of its suburbs are flooded at high-water; and the Natives live in huts raised upon piles, with the salt-water flowing underneath them. The houses of Europeans are very excellent, substantially and elegantly built, and in a style somewhat Chinese. Unfortunately, there are no hotels or lodging-houses, so that strangers are awkwardly situated. However, the great hospitality of the Residents make amends for this want; and a letter of introduction generally secures quarters for the stranger during his stay. Houses may be got to rent at from thirty to forty dollars a month; so that those taking their camp-equipage with them, might take up house comfortably. There is a large European society at Singapore, principally mercantile,—much conviviality and good-fellowship prevail, and the visitor is sure to meet with a hearty welcome. The voyage from Calcutta to Singapore occupies about four weeks; the price of a passage is about 400 rupees. Singapore is also a penal settlement. The troops are supplied by the Madras Presidency.

LXXXIX. MACAO.

Macao is the next resort in progressing towards the East. It stands in a fine sheltered bay, upon a small rocky peninsula, and cut off from all communication with the main-land by a wall thrown across its isthmus, thus converting it, as it were, into an island. This barrier is carefully guarded by Chinese soldiers, and no European is allowed to pass beyond it. Macao is a Portuguese settlement, and is very strongly fortified; but the troops, as I have been told, do not amount to more than four hundred men. Macao is the most irregularly-built town I have ever seen; the streets are extremely narrow, crooked, up-and-down hill, paved with large masses of stone, of the rudest description. They are quite impassable for carriages, or even horses, and people are carried about in sedan-chairs.

There are two pretty good hotels in Macao, but most exorbitantly dear: one dollar a day for a room, three-quarters for breakfast, one and a half for dinner, and every thing else in proportion. Though Macao is nominally governed by the Portuguese, yet the Chinese form the chief mass of the population, overlook all their actions, and often thwart their projects. In fact, the system of supremacy the Chinese maintain over

the Portuguese is quite humiliating. Macao is the chief residence of the English merchants of Canton. All their wives and families reside there; and, when the season of business is over, Macao is the place of rendezvous.

I am inclined to think very favourably of the climate of Macao. It is by no means a cool place; but the refreshing sea-breeze makes ample amends for the intensity of the heat. However, it is a place that strangers will very soon tire of, from the confinement that is imposed upon them.

XC. CANTON.

Canton is the last place in the world to go to in search of health; but, as few invalids visit Macao that do not visit it, the following particulars may be interesting:—

During my stay in Canton, I had many opportunities of seeing the domestic life led by the residents, and never witnessed such confinement. One might as well live in a prison. He would there have pure air, and the light of day to cheer him; have as much room for recreation and amusement; would be exempt from continued noise, and a combination of villainous smells, and would have no one to claim greater privileges than himself, or jostle him in the narrow alleys; but in Canton, gentlemen in the receipt of some thousands

per year are glad to be allowed to rent a pig-stye of a house, at the furthest end of a dark and dirty lane; sometimes, without being able to command a direct ray of sunshine, and shut up from all ventilation, unless on the tops of the houses. Out-of-doors they have nothing but about an acre of ground for exercise, in front of the factories: this is, during the day, used as a market-place; and at night polluted with every sort of nuisance. They dare not for their lives venture within the walls of Canton. They are not allowed the conveyances used by the respectable class of Chinese, the sedan-chair; and, as they thread their way through the suburbs, they are liable to be jostled by some heaven-born cooly, the lowest wretch of whom would think it derogatory to the dignity of a subject of the Celestial Empire to make way one inch for an out-side barbarian. Strangers are strictly prohibited from walking into the country; and if they venture, they are liable to be mobbed and severely bastinadoed. They are equally debarred from sailing on the river beyond certain limits, and have the same risk of rough usage afloat as ashore. Nor are they even allowed to have the society of their wives and families in Canton; they would as soon be permitted to maintain a regiment of soldiers for their defence, as to have a European lady in their household.

With all these drawbacks, Canton is a place

that will well repay the stranger for a visit, provided he has strength of constitution enough to rough it; but he should, if possible, avoid it during the hot months, nor enter it before November. There are two Hotels, equally expensive with those of Macao, or more so, with not one half the comfort. There is a very large society of Europeans in Canton: and I have no where in the world met with more genuine hospitality. He will be much pleased with the Chinese merchants in communication with Europeans; with their politeness, their candour, and straightforward honesty, and the confidence they repose in their customers.

There is, as near as possible, no intercourse between the principal functionaries of Canton and the foreign merchants. The former shut themselves up in the city, and leave all transactions with the Fan-quis, or foreign devils, as they are called, to the Hong merchants, who are accountable for all the actions of the residents.

I have thus furnished a very brief sketch of the places, towards the East, frequented by invalids from India. As I have spent some time at all of them, I could easily have drawn largely upon my notes; but more detail would be out of place in such an essay as this. When the patient has no organic disease, and is merely suffering from debility consequent to continued fever, or when a long residence at an out-station has ulcerated his

mind, and tedium vitæ, and hypochondriasis have sapped the foundations of his intellects, no resort affords such advantages as a voyage to the Straits and China. While on board ship, he will every day see some new phenomenon of nature, for which the voyage in these seas is remarkable; and he can no where set his foot on shore, without meeting with interesting varieties of the human race, that cannot fail to absorb his attention, and turn the morbid current of his thoughts into new and more congenial channels.

XCI. ISLE OF FRANCE.

The next Sanatarium in succession is the Isle of France. This has long been a favourite spot. The voyage from Calcutta may be made in a month or six weeks; and the grand advantage it possesses is, that when the weather is hottest is India, it is coolest in the Mauritius. I have visited the island twice, and left it with the most favourable impressions in regard to its climate. It has the character of being an expensive place; but this, with a little provident care, might be avoided. There are two good hotels, but they are enormously expensive; and no subaltern could afford to take up his quarters in them. From enquiries, I found that a snug little bachelor's house, in Port Louis, the capital, might be rented for about forty rupees

a-month, and in the country for less. The table expenses might be got for forty rupees a-month more. A horse, or a buggy, is not much wanted where every one walks on foot, and at all hours of the day; and if the stranger becomes tired of the place, he will readily find a passage to the Cape, or Van-Diemen's Land, for about 400 rupees, being about the same that he pays to or from Calcutta. Every visitor, intending to spend a few months, should take one or two servants with him, and his camp equipage, minus his tent. He will thus be enabled to set up house, and make himself at home at once. The Isle of France is most romantic, abounding in most picturesque scenery, where the water-fall, the forest, the cane-covered valley, and the steep, craggy, mist-shrouded mountain, mingle in happiest combination. The temperature is most congenial, constantly ventilated by the bracing S. E. Trade, and varied by the sunshine and the shower—perhaps a little too hot out of doors, during the summer season, in the lowlands, but admitting of easy transitions to higher regions, where a cooler atmosphere may be enjoyed. All the inhabitants spoke in high terms of its climate, and their very healthy appearance did not contradict them.

XCII. CAPE OF GOOD HOPE.

Of all the resorts of Indian invalids, the Cape

of Good Hope is most frequented, and a numerous society is at all times mustered there from Bengal, Madras, and Bombay. Most visitors spend one or two years there; and all whose shattered constitutions would entitle them to leave, to return to Britain, but whose finances do not admit of that, are contented to go no farther than the Cape. The voyage is seldom made in less than two months from Calcutta; the passage-money is high, indeed, nearly as high as that to Europe, and may be estimated at 1000 rupees. Since the abolition of slavery, every thing at the Cape has been very much increased in price, and living there is now very expensive. The climate of the Cape is very congenial to the invalid. Cape Town affords every comfort in point of accommodation; hotels, boarding-houses, and private lodgings, either in town or country, are easily procured; there is an excellent library and reading-room; and frequent opportunities occur of returning to India, or proceeding to New South Wales, or the Mauritius.

XCIII. NEW SOUTH WALES.

The last quarter frequented by Indian invalids is Van Diemen's Land, or New South Wales.

Public opinion is pretty nearly balanced between the comparative advantages of the Cape and

Australia; and now that the Cape has become so expensive, many more go to Australia than formerly. A Company has, of late years, been formed in Calcutta, to maintain a regular communication; and a comfortable passage can be readily secured for 800 or 1,000 rupees. There is a very able paper, on the climate of Van Diemen's Land, published in the Transactions of the Medical Society of Calcutta, vol. VII., part 2d, by Mr. Dempster. In it he states, in reference to the climate,—"Every invalid, of whose case I could obtain an account, had obtained great and decided benefit; with the exception of a few persons who arrived in the colony, either labouring under, or having a strong predisposition to, thoracic disease.

"But so far as our present knowledge and experience go, I think we may safely conclude that, with a very few exceptions, all invalids, for whom a change of climate is deemed necessary, may hope to derive the fullest benefit of such change by a temporary residence in Van Diemen's Land."

XCIV. DIFFERENCE OF PAY WHILE ON SICK LEAVE.

It is proper to observe, that the terms on which these furloughs on sick-certificate are granted, are very different from what is allowed on proceeding to Europe.

An officer on medical-certificate at any station east of St. Helena, draws, during his absence, his full Indian allowances; the half of his staff-allowance, if on the staff; he can re-enter upon his staff-appointment on his return; and the period of his absence is counted the same as actual service in India: whereas, an officer proceeding to Europe on medical-certificate, is shorn of his Indian allowances, put upon bare English pay, is considered to have forfeited all right to enter upon a staff-appointment on his return, and the period of his absence counts as nothing. But to put the two cases in a still more conspicuous point of view, we shall draw the parallel still more closely. For example:—A Garrison-Surgeon, with all the comforts and conveniences of cantonments about him, falls into bad health, and becomes subject to repeated attacks of intermittent fever. He is not entirely rendered unfit for duty, but the disease still hangs about him; and he proceeds, on sick-certificate, to the Cape of Good Hope. On the other hand, a Field-Surgeon, during an arduous and a sickly campaign, is seized with jungle fever; his athletic frame is speedily reduced to a skeleton; his mind is shattered to its foundation by the throes of a distressing delirium; he is hurried on to the very verge of the grave; and the only way of restoring him to health, and the service, is a sojourn in his native land. The Can-

tonment-Surgeon goes to the Cape for two years: during his absence, receives about £490 a year, besides the half of his staff-allowance, has his time reckoned as if he were in India, and returns to his well-paid appointment: whereas the Field-Surgeon goes to England; has his passage paid home and out again, if he cannot afford to do it himself; has only £191 per annum during his absence; his time counts for nothing; and, in the event of being able to return to India, he cannot claim his old appointment, but must take any that turns up.

Thus the convalescent, from a desperate disease, is subjected to much harder terms than one from a comparatively trivial character. Hence, a reason why so many linger on and die at the Cape, who could not submit to the sacrifice of losing a good appointment, or who had not the means of returning to Europe, where alone they could hope to recover; and Government are thus deprived of the life of many a valuable officer, who, but for this cruel regulation, might have lived to return to his duty.

XCV. PRECAUTIONS TO BE TAKEN BY INVALIDS.

Though few things contribute so rapidly to convalescence as going to sea, yet proper pre-

cautions are necessary before embarking; for if the invalid be hurried on board, without the necessary comforts and attendants, he will soon have occasion to repent of it, and get worse instead of better.

Every invalid on going to sea should, if he can afford it, have a servant of his own, and have a small private store of arrow-root, tapioca, spices, &c. &c.; for even in the best-regulated ships, he cannot expect to meet with that attendance that may be necessary to his comfort, more particularly at the beginning of the voyage, when all is hurry and confusion, and every one is busy in his own affairs. Should he be in very delicate health, he will find a milch-goat a great advantage. She will give little trouble on board, and can be fed and housed with the other live stock. A patent water-filter will also be very serviceable; and a few bottles of raspberry vinegar, to qualify his drink, quite a cordial.

No two things are more different than a ship lying at anchor in the Hoogly, for the inspection of passengers, and the same ship fully laden, and under sail. In the former condition, the accommodations are all light, and air, and peace, and quietness; in the latter, too often dark, damp, unventilated, and unwholesome.

Nothing can be more miserable than the lower deck of a ship at sea, so deeply laden that the

ports cannot be kept open. I would strongly dissuade every invalid from taking a lower cabin in any ship, no matter how well lighted, and how airy she may look in harbour, with all her ports and hatches open. A cabin on the poop will be more expensive, but this will be made up by an extra degree of comfort. I would as strongly dissuade him from embarking in a sugar-laden ship, as there is in general so much offensive gas generated by the sugar, that it blackens every painted pannel, more particularly when lead is the basis of the paint; in fact, it gives the cabin the appearance of being newly soaked with soot and water, and is equally nasty and abominable. Some captains are so provident, and have so much regard for the health of their passengers, as to have all the sugar stowed in the fore-hold, reserving the after-part for other cargo.

Ships, for the conveyance of troops, are obliged to load to a certain depth, so as in moderate weather to admit of the ports being kept open. It would be well if this regulation were adhered to in all ships fitted-up expressly for passengers, for they are sometimes so deeply laden, as to render all comfort below utterly hopeless; the ports instead of admitting, as was expected, the light of day and fresh air, admitting nothing but the light of the sea and salt water; and the heat and moisture rendering it insupportable to remain

below. The situation of an invalid, under such circumstances, who requires more free air than a man in health, and is unable to leave his cabin, is most distressing, and can only be conceived by those who have seen one labouring under acute disease, under such disadvantages.

It is a remarkable anomaly, that Government are so laudably particular in regulating the draught of water, of ships with troops on board, so as to secure the necessary ventilation; and that ships, the greater number of whose passengers are Officers in the Army, are allowed to put to sea, laden at the discretion of the captains or owners.

FINIS.

W. Lewis and Son, Printers, Finch-lane, London.